

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shosho Examiner #: 75636 Date: 8/1/03
 Art Unit: 1714 Phone Number 30 5-0208 Serial Number: 101000, 284
 Mail Box and Bldg/Room Location: CP3-5D21 Results Format Preferred (circle): PAPER DISK E-MAIL
CP3-4001 (mailbox)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Eric
 Title of Invention: Aqueous Ink Jet Printable Compositions

Inventors (please provide full names): Dong Wu, Larry R. Krepski,
Kevin M. Lewandowski, Caroline M. Gitalis, Peter T. Elliot

Earliest Priority Filing Date: 11/15/01

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Oblique please find the silyl-terminated
sulfopoly(ester-urethane) of claim 2?
(Closest art is printed out first)

Produced by

Reacting sulfonated polyester diol with diisocyanate
 and optionally diol in organic solvent to produce
 isocyanate terminated oligomer then

Adding aminoalkyltrialkoxysilane to react with the
 isocyanate groups

Then inverting reaction mixture into water +
 removing solvent to produce the silyl-terminated
 sulfopoly(ester-urethane)

STAFF USE ONLY

Searcher: W. J. [unclear] Type of Search Sequence (#) Vendors and cost where applicable
 STN \$496.55
 Searcher Phone #: AA Sequence (#) Dialog
 Searcher Location: Structure (#) (7) (Subjects)
 Date Searcher Picked Up: Bibliographic (and) Link
 Date Completed: 8-8-03 Litigation Lexis/Nexis
 Searcher Prep & Review Time: 30 Fulltext Sequence Systems
 Clerical Prep Time: Patent Family WWW/Internet
 Online Time: 130 Other Other (specify)

=> file reg

FILE 'REGISTRY' ENTERED AT 21:59:43 ON 08 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> display history full 11-

FILE 'HCAPLUS' ENTERED AT 20:25:00 ON 08 AUG 2003

L1 106645 SEA WU ?/AU
L2 116 SEA KREPSKI ?/AU
L3 1900 SEA LEWANDOWSKI ?/AU
L4 203 SEA YLITALU ?/AU OR YLITALO ?/AU
L5 1047 SEA ELLIOT ?/AU
L6 0 SEA L1 AND L2 AND L3 AND L4 AND L5
L7 10333 SEA ELLIOTT ?/AU
L8 1 SEA L1 AND L2 AND L3 AND L4 AND L7
D ALL
SEL L8 1 RN

FILE 'REGISTRY' ENTERED AT 20:30:00 ON 08 AUG 2003

L9 8 SEA (109-73-9/BI OR 395667-35-3/BI OR 533938-24-8/BI OR

FILE 'HCAPLUS' ENTERED AT 20:35:47 ON 08 AUG 2003

L10 18594 SEA INKJET? OR THINKJET? OR (INK? OR PRINT?) (3A) (JET OR
JETS OR JETTED OR JETTING#)
L11 109 SEA (SULFO OR SULPHO OR SULFONAT? OR SULPHONAT? OR
POLYSULFO OR POLYSULPHO OR POLYSULFONAT? OR POLYSULPHONAT
?) (3A) (URETHAN## OR POLYURETHAN##) (3A) (POLYESTER# OR
POLY(A)ESTER#) OR (SULFOPOLY OR SULPHOPOLY) (3A) ESTER# (3A
) URETHAN##
L12 7645 SEA ?SILYL? (3A) (ENDCAP? OR ENDGROUP? OR ENDBLOCK? OR
TERMINA? OR END? (2A) (CAP OR CAPS OR CAPPED OR CAPPING#
OR GR OR GRP OR GROUP? OR BLOCK?))
L13 1 SEA L10 AND L11 AND L12
L14 70230 SEA INK?
L15 1 SEA L14 AND L11 AND L12
L16 2 SEA L10 AND L11
L17 1 SEA L16 AND ?SILYL?
L18 8 SEA L14 AND L11
L19 1 SEA L18 AND ?SILYL?
L20 452237 SEA ENDCAP? OR ENDGROUP? OR ENDBLOCK? OR TERMINA? OR
END? (2A) (CAP OR CAPS OR CAPPED OR CAPPING# OR GR OR GRP
OR GROUP? OR BLOCK?)
L21 2 SEA L18 AND L20

FILE 'LREGISTRY' ENTERED AT 20:44:04 ON 08 AUG 2003

L22 STR

FILE 'REGISTRY' ENTERED AT 20:48:33 ON 08 AUG 2003
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L24 STR L22
L25 39 SEA SSS SAM L24

FILE 'LREGISTRY' ENTERED AT 20:50:59 ON 08 AUG 2003
L26 STR L22

FILE 'REGISTRY' ENTERED AT 20:52:36 ON 08 AUG 2003
L27 15 SEA SSS SAM L26
L28 2471 SEA SSS FUL L26
SAV L28 SHO284/A

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L30 STR
L31 STR
L32 STR
L33 2 SEA SSS SAM L32
L34 STR L32

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L36 SCR 2043
L37 18 SEA SSS SAM L29 AND L30 AND L31 AND L36
L38 50 SEA SSS SAM L30 AND L36
L39 67897 SEA SSS FUL L30 AND L36
SAV TEM L39 SHO284A/A
L40 18 SEA SUB=L39 SSS SAM L29 AND L30 AND L31 AND L36
L41 381 SEA SUB=L39 SSS FUL L29 AND L30 AND L31 AND L36
SAV L41 SHO284B/A
L42 4 SEA L28 AND L41
L43 377 SEA L41 NOT L42

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L46 5152 SEA 502-44-3/CRN
L47 31 SEA L43 AND L46

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L49 18 SEA L47
L50 14430 SEA L28
L51 6 SEA L49 AND (L12 OR L50)
L52 1 SEA L51 AND (L14 OR L10)
L53 6 SEA L49 AND ?SILYL?
L54 1 SEA L53 AND (L14 OR L10)
L55 9 SEA L48 AND (L12 OR L50)
L56 1 SEA L55 AND (L14 OR L10)

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L57          7 SEA L48 AND ?SILYL?
L58          1 SEA L57 AND (L14 OR L10)

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L59          STR

FILE 'REGISTRY' ENTERED AT 21:16:38 ON 08 AUG 2003
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L61          1651 SEA SUB=L39 SSS FUL L59
              SAV L61 SHO284C/A

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L65          12 SEA L62 AND ?SILYL?
L66          2 SEA L65 AND (L14 OR L10)

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L69          7 SEA L68 AND (L12 OR L50 OR ?SILYL?)
L70          1 SEA L69 AND (L14 OR L10)
L71          6 SEA L13 OR L15 OR L16 OR L17 OR L19 OR L21 OR L44 OR L52
              OR L54 OR L56 OR L58 OR L64 OR L66 OR L70
L72          11 SEA (L18 OR L51 OR L53 OR L55 OR L57 OR L69) NOT L71
L73          8 SEA (L63 OR L65) NOT (L71 OR L72)

=> d l28 que stat
L26          STR

              12
              Ak
              {
              G1 11
              {
              4
Ak~N          H2N~~G2~Ak~G1~Si~O~Ak
@19 @18      15   1   2   3   {   5   6
              {
              G1 13
              {
              Ak
              14

REP G1=(0-1) O
REP G2=(0-10) 18-2 19-15
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 2

```

CONNECT IS E1 RC AT 6
 CONNECT IS E1 RC AT 12
 CONNECT IS E1 RC AT 14
 CONNECT IS E2 RC AT 19
 DEFAULT MLEVEL IS ATOM
 GGCAT IS SAT AT 6
 GGCAT IS SAT AT 12
 GGCAT IS SAT AT 14
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 DEFAULT ECLEVEL IS LIMITED

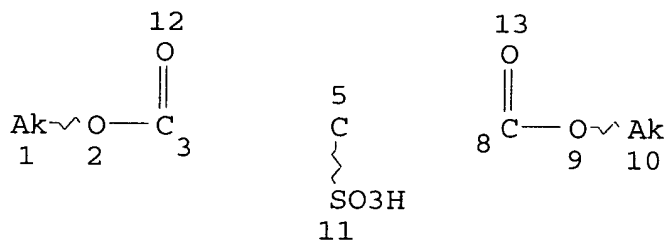
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STEREO ATTRIBUTES: NONE
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2471 ANSWERS

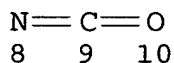
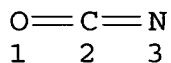
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 L29 STR



NODE ATTRIBUTES:
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 CONNECT IS E1 RC AT 1
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 DEFAULT MLEVEL IS ATOM
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 GGCAT IS SAT AT 10
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
 L30 STR



NODE ATTRIBUTES:
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 DEFAULT ECLEVEL IS LIMITED

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 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
 L31 STR



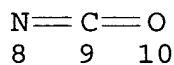
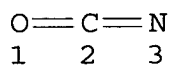
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STEREO ATTRIBUTES: NONE
 L36 SCR 2043
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 L41 381 SEA FILE=REGISTRY SUB=L39 SSS FUL L29 AND L30 AND L31
 AND L36

100.0% PROCESSED 622 ITERATIONS 381 ANSWERS
 SEARCH TIME: 00.00.01

=> d l61 que stat
 L30 STR



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GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE

L36 SCR 2043

L39 67897 SEA FILE=REGISTRY SSS FUL L30 AND L36

L59 STR

C~~SO3H

1 2

NODE ATTRIBUTES:

NSPEC IS RC AT 1

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE

L61 1651 SEA FILE=REGISTRY SUB=L39 SSS FUL L59

100.0% PROCESSED 1651 ITERATIONS

1651 ANSWERS

SEARCH TIME: 00.00.01

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 22:00:52 ON 08 AUG 2003

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=> d l71 1-6 ibib abs hitstr hitind

L71 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:417814 HCAPLUS

DOCUMENT NUMBER: 139:8268

TITLE: Aqueous ink jet
printable compositions, printing
, and printed articles

INVENTOR(S): Wu, Dong; Krepski, Larry R.; Lewandowski, Kevin
M.; Ylitalo, Caroline M.; Elliott, Peter T.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003044103 A1 20030530 WO 2002-US30746 20020926

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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ,
VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
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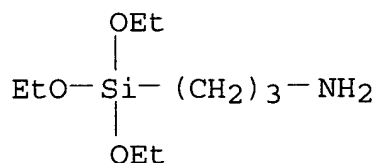
US 2001-284 A 20011115

AB **Ink jet printable** compns. comprise an aq. vehicle, particles (.gtoreq.20% dispersed shear deformable) of a self-crosslinking polymer, and optional colorant. Specifically, an **ink jet printable ink** comprises an aq. vehicle, a colorant, and a **silyl-terminated sulfopoly(ester-urethane)**. The **inks** show good adhesion to reflective sheeting, vinyl film and cotton wipes, and other materials.

IT **919-30-2DP**, 3-Aminopropyltriethoxysilane, reaction products with **sulfonated polyester polyurethane 533938-24-8DP**, reaction products with aminopropyltriethoxysilane **533938-25-9DP**, reaction products with aminopropyltriethoxysilane **533938-26-0DP**, reaction products with aminopropyltriethoxysilane **533938-27-1DP**, reaction products with aminopropyltriethoxysilane **533938-28-2DP**, reaction products with aminopropyltriethoxysilane (high solids compns. contg. self-crosslinking **sulfonated polyester polyurethane** in aq. vehicle with shear thinning property)

RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 533938-24-8 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,6-diisocyanatohexane, 1,2-ethanediol, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI) (CA INDEX NAME)

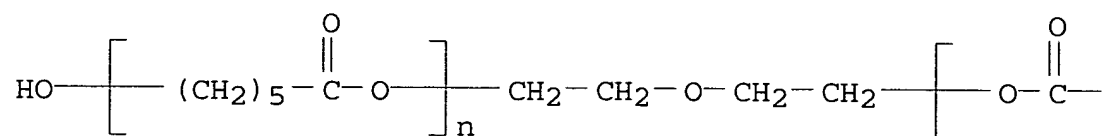
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CRN 50327-24-7

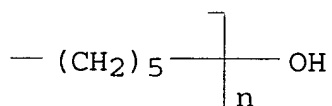
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CCI PMS

PAGE 1-A



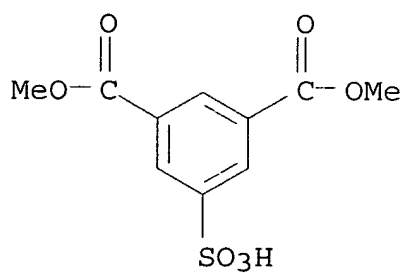
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CRN 3965-55-7

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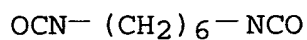


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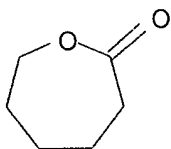
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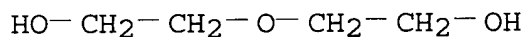
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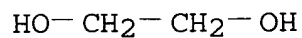
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CM 6

CRN 107-21-1
CMF C2 H6 O2

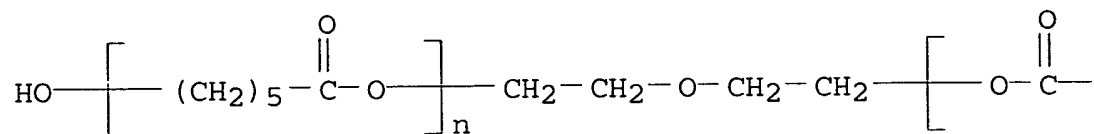


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(CA INDEX NAME)

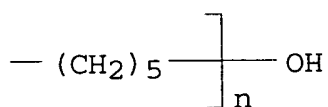
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CCI PMS

PAGE 1-A



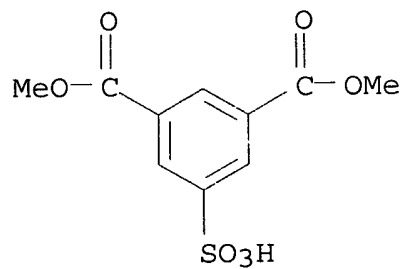
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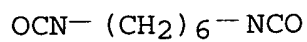


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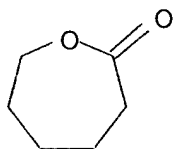
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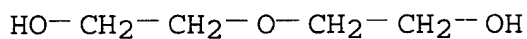
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CM 5

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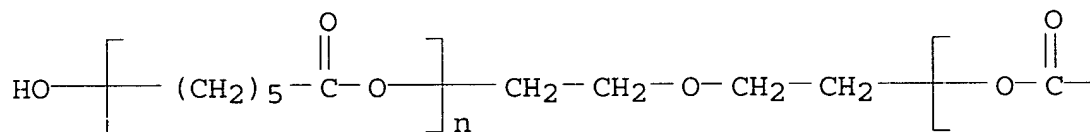


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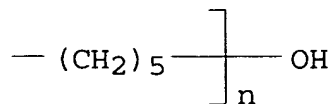
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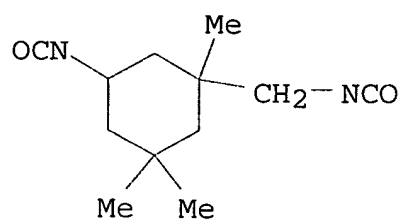
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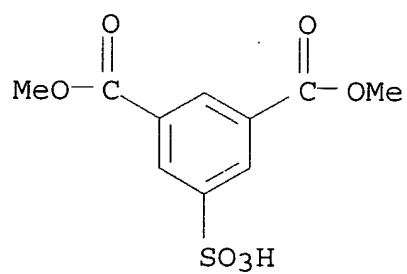
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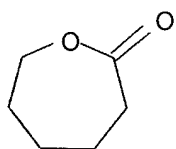


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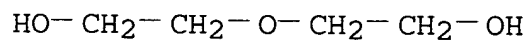
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CM 5

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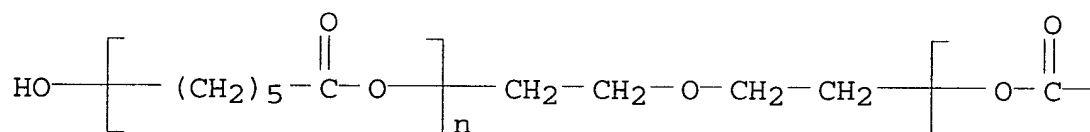
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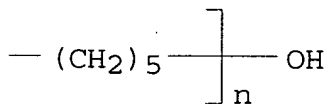
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CCI PMS

PAGE 1-A

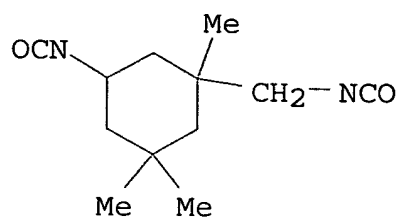


PAGE 1-B



CM 2

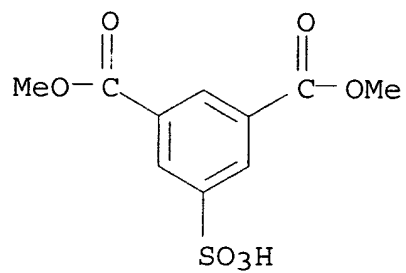
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CM 3

CRN 3965-55-7

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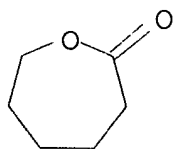


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CM 4

CRN 502-44-3

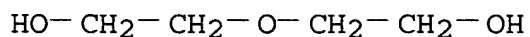
CMF C6 H10 O2



CM 5

CRN 111-46-6

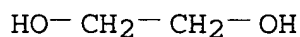
CMF C4 H10 O3



CM 6

CRN 107-21-1

CMF C2 H6 O2



RN 533938-28-2 HCAPLUS

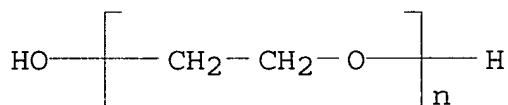
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

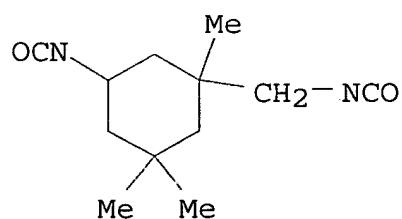
CCI PMS



CM 2

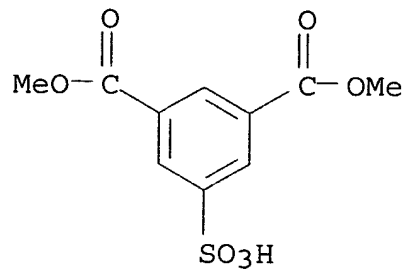
CRN 4098-71-9

CMF C12 H18 N2 O2



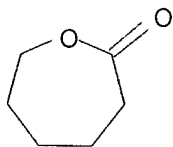
CM 3

CRN 3965-55-7
 CMF C10 H10 O7 S . Na

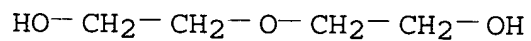


● Na

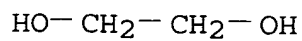
CM 4
 CRN 502-44-3
 CMF C6 H10 O2



CM 5
 CRN 111-46-6
 CMF C4 H10 O3



CM 6
 CRN 107-21-1
 CMF C2 H6 O2



IC ICM C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
ST self crosslinking **sulfonated polyester polyurethane** aq printing ink
IT **Inks**
(**jet-printing**, water-thinned; high solids compns. contg. self-crosslinking **sulfonated polyester polyurethane** in aq. vehicle with shear thinning property)
IT **Polyurethanes**, uses
(**polyester-**, **sulfo** group-contg., **silyl-terminated**; high solids compns. contg. self-crosslinking **sulfonated polyester polyurethane** in aq. vehicle with shear thinning property)
IT 395667-35-3P, Diethylene glycol-dimethyl 5-sodiosulfoisophthalate-epsilon.-caprolactone copolymer
(high solids compns. contg. self-crosslinking **sulfonated polyester polyurethane** in aq. vehicle with shear thinning property)
IT 109-73-9DP, n-Butylamine, reaction products with **sulfonated polyester polyurethane 919-30-2DP**, 3-Aminopropyltriethoxysilane, reaction products with **sulfonated polyester polyurethane 533938-24-8DP**, reaction products with aminopropyltriethoxysilane **533938-25-9DP**, reaction products with aminopropyltriethoxysilane **533938-26-0DP**, reaction products with aminopropyltriethoxysilane **533938-27-1DP**, reaction products with aminopropyltriethoxysilane **533938-28-2DP**, reaction products with aminopropyltriethoxysilane
(high solids compns. contg. self-crosslinking **sulfonated polyester polyurethane** in aq. vehicle with shear thinning property)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L71 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:815179 HCAPLUS
DOCUMENT NUMBER: 133:367863
TITLE: Biaxially oriented polyester film and **ink-jet printing** receptor using same
INVENTOR(S): Kinoshita, Shuichi; Ueda, Takashi; Onishi, Masaya
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000318294	A2	20001121	JP 1999-125521	19990506
PRIORITY APPLN. INFO.:			JP 1999-125521	19990506

AB The title polyester film, used as an image-receiving sheet for **ink jet** recording, has d. of 0.6-1.2 g/cm³, whiteness of .gtoreq.100%, and gloss of .gtoreq.50% and possesses a resin layer contg. .gtoreq.1 selected from **polyester**, copolymd. **polyester**, acrylic, **polyurethane**, and **sulfonated** polystyrene resins formed on .gtoreq.1 side. The image-receiving sheet comprises the polyester film coated with an ink-receptive layer on .gtoreq.1 side. The film is esp. useful as an image-receiving sheet for highly efficient **ink jet printers** and provides glossy, high quality images.

IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST **ink jet printing** sheet biaxially oriented polyester

IT Acrylic polymers, uses

Polyurethanes, uses

(**ink** receiving layer; **ink-jet printing** sheet using biaxially oriented polyester)

IT **Ink-jet** recording sheets
(**ink-jet printing** sheet using biaxially oriented polyester)

IT Polyesters, uses
(**ink-jet printing** sheet using biaxially oriented polyester)

IT 1533-45-5
(OB 1; **ink-jet printing** sheet using biaxially oriented polyester)

IT 9003-53-6D, Polystyrene, sulfonated
(**ink** receiving layer; **ink-jet printing** sheet using biaxially oriented polyester)

IT 13463-67-7, Titania, uses
(**ink-jet printing** sheet using biaxially oriented polyester)

IT 9016-80-2, Polymethylpentene 25038-59-9, Poly(ethylene terephthalate), uses
(**ink-jet printing** sheet using biaxially oriented polyester)

L71 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:427895 HCAPLUS

DOCUMENT NUMBER: 129:162474

TITLE: Electrically semiconductive components and their manufacture

INVENTOR(S): Ishii, Sachihiro; Ano, Michiaki; Mutsusori,
Minoru; Fukuda, Mitsuo; Mihara, Atsushi; Ozaki,
Yuzo; Takinami, Makoto; Soyama, Takeo
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10175264	A2	19980630	JP 1996-327165	19961206
JP 3000944	B2	20000117		
US 5925893	A	19990720	US 1997-881492	19970924
PRIORITY APPLN. INFO.:			JP 1996-163211	A 19960624
			JP 1996-272414	A 19961015
			JP 1996-327165	A 19961206

AB Title components, useful for printing app., contain elec. conductive bases and elec. conductive layers and/or resist-control layers contg. polyurethane ionomers contg. sulfonic, carboxylic, and/or tert-amino groups or salts. A primed stainless core was coated with an elec. conductive JSR-SL 574 compn., then with a carbon black/Amilan CM 8000 blend, further coated with a soln. (A) contg. adipic acid-1,4-butanediol-di-Me 5-sodiosulfoisophthalate-MDI copolymer and Takenate D 170N, cured, and covered with a carbon black-contg. A soln. to form a roll showing good application continuity under low temp. and moisture.

IT **210910-58-0P**
(polyurethane ionomer-contg. layer-contg. semiconductive components for printing app.)

RN 210910-58-0 HCAPLUS

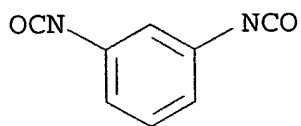
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-butanediol, 1,3-diisocyanatomethylbenzene, hexanedioic acid, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid and N-[3-(trimethoxysilyl)propyl]-1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5

CMF C9 H6 N2 O2

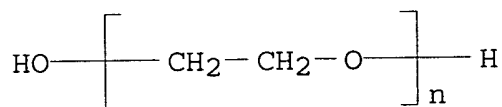
CCI IDS



D1-Me

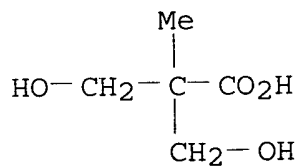
CM 2

CRN 25322-68-3
 CMF (C2 H4 O)_n H2 O
 CCI PMS



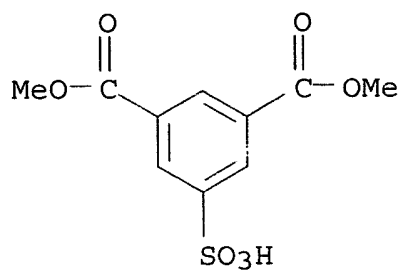
CM 3

CRN 4767-03-7
 CMF C5 H10 O4



CM 4

CRN 3965-55-7
 CMF C10 H10 O7 S . Na

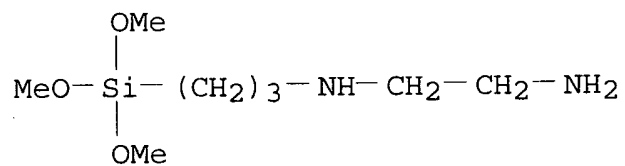


● Na

CM 5

CRN 1760-24-3

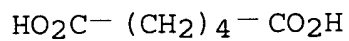
CMF C8 H22 N2 O3 Si



CM 6

CRN 124-04-9

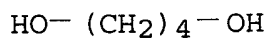
CMF C6 H10 O4



CM 7

CRN 110-63-4

CMF C4 H10 O2



IC ICM B32B007-02

ICS B32B027-40; C09D175-04; F16C013-00; G03G015-02; G03G015-16;

G03G015-20; G03G021-10

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 39, 74

IT 210910-52-4P, Adipic acid-1,4-butanediol-dimethyl
 5-sodiosulfoisophthalate-MDI-Takenate D 170N copolymer
 210910-53-5P, Adipic acid-1,4-butanediol-2,2-dimethylolpropanoicacid-
 dimethyl 5-sodiosulfoisophthalate-polyoxyethylene-TDI-Takenate D
 170N copolymer 210910-54-6P 210910-55-7P, Adipic
 acid-1,4-butanediol-dimethyl 5-sodiosulfoisophthalate-
 isophoronediamine-monoethanolamine-polyoxypropylene-MDI-Takenate D
 160N copolymer 210910-56-8P, Adipic acid-1,4-butanediol-1,6-
 hexanediol-dimethyl 5-sodiosulfoisophthalate-TDI-Takenate D 160N
 copolymer 210910-57-9P, Ethylene glycol-MDI-N-methyldiethanolamine-
 propyleneoxide-Takenate D 160N-N,N-dimethyl N,N-di(2-
 hydroxyethyl)ammonium p-toluenesulfonate copolymer
210910-58-0P 210910-59-1P 210910-60-4P 211189-96-7P,
 Adipic acid-1,4-butanediol-2,2-dimethylolpropanoicacid-dimethyl
 5-sodiosulfoisophthalate-polyoxyethylene-TDI-Desmodur HT copolymer
 211189-97-8P, Adipic acid-1,4-butanediol-dimethyl
 5-sodiosulfoisophthalate-MDI-Desmodur HT copolymer 211189-98-9P
 (polyurethane ionomer-contg. layer-contg. semiconductive
 components for printing app.)

L71 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:224022 HCAPLUS

DOCUMENT NUMBER: 126:213462

TITLE: Water-dispersible silyl-terminated sulfo
 group-containing polyester-polyurethane pavement
 marking compositions with good weather and
 abrasion resistance and marking of pavements
 with them

INVENTOR(S): Larson, Wayne K.; Heilmann, Steven M.; Krepski,
 Larry R.; Mickus, Daniel E.; Smith, Howell K.,
 III; Purgett, Mark D.; Borden, Thomas R.; May,
 David C.; Jacobs, Gregory F.; Hachey, Kathleen
 A.; Velamakanni, Bhaskar V.; Menzies, Robert H.;
 Eastin, Brian C.; Schultz, William J.

PATENT ASSIGNEE(S): Minnesota Mining and Mfg. Co., USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703252	A1	19970130	WO 1996-US10874	19960625
W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG			

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
GN

US 5747626	A	19980505	US 1996-609877	19960301
CA 2226368	AA	19970130	CA 1996-2226368	19960625
AU 9663941	A1	19970210	AU 1996-63941	19960625
AU 697950	B2	19981022		
EP 837971	A1	19980429	EP 1996-923428	19960625
EP 837971	B1	19990421		

R: AT, DE, ES, FR, GB, IT, NL

CN 1189870	A	19980805	CN 1996-195273	19960625
AT 179233	E	19990515	AT 1996-923428	19960625
JP 11508944	T2	19990803	JP 1996-505837	19960625

PRIORITY APPLN. INFO.:

US 1995-954P	P	19950707
US 1996-609877	A	19960301
WO 1996-US10874	W	19960625

AB The aq. pavement marking compns. comprise sulfo group-contg. polyester-polyurethanes having the backbone contg. .gtoreq.1 nonterminal arylene or alkylene group comprising a pendant sulfonic acid group or salts thereof and having .gtoreq.1 hydrolyzable silyl terminal group, and optionally contain pigments, optical elements, skid-resistant particles, filler, and/or extenders. A 1:0.87 (mol ratio) mixt. of di-Me 5-sodiosulfoisophthalate was copolymd. with PCP 0200 (polycaprolactone diol) to give a precursor, which (649.8 g) was copolymd. with ethylene glycol 89.4, isophorone diisocyanate 800.2, and (3-aminopropyl)triethoxysilane 159.4 g in H₂O to give an aq. dispersion (solids 54%) of a silanol-terminated sulfo group-contg. polyester-polyurethane with glass transition temp. 26.degree.. A cast film of the dispersion exhibited tensile strength 17.9 MPa and elongation 587%.

IT 188011-06-5P 188011-07-6P 188011-08-7P
(rubber, coating; water-dispersible silyl-terminated sulfo group-contg. polyester-polyurethane pavement marking compns. with good weather and abrasion resistance and marking of pavements with them)

RN 188011-06-5 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] and 3-(triethoxysilyl)-1-propanamine (9CI) (CA INDEX NAME)

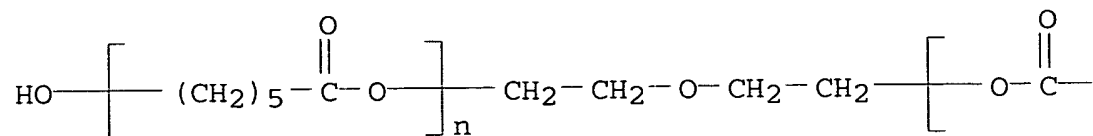
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CRN 50327-24-7

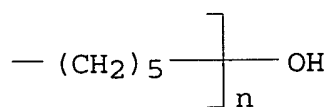
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



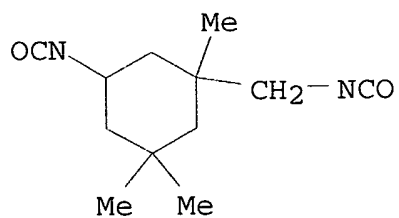
PAGE 1-B



CM 2

CRN 4098-71-9

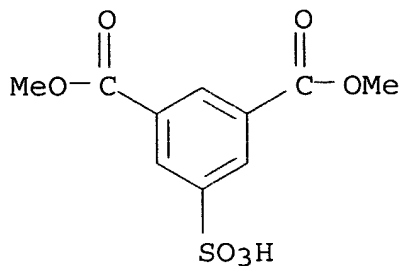
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

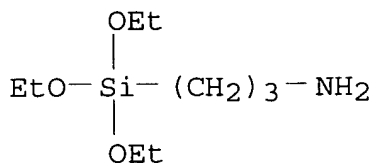


● Na

CM 4

CRN 919-30-2

CMF C9 H23 N O3 Si



CM 5

CRN 107-21-1

CMF C2 H6 O2



RN 188011-07-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 1,1'-methylenebis[4-isocyanatocyclohexane], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] and 3-(triethoxysilyl)-1-propanamine (9CI) (CA INDEX NAME)

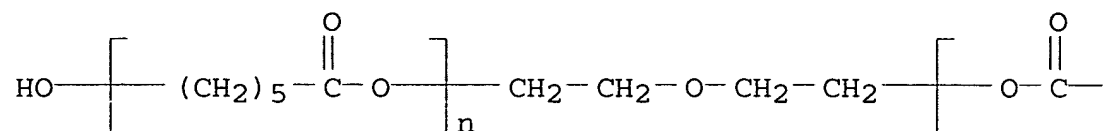
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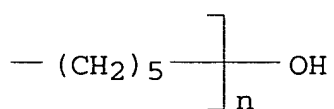
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



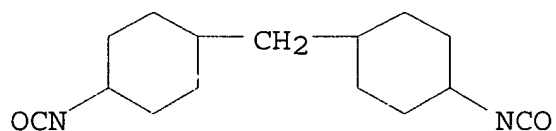
PAGE 1-B



CM 2

CRN 5124-30-1

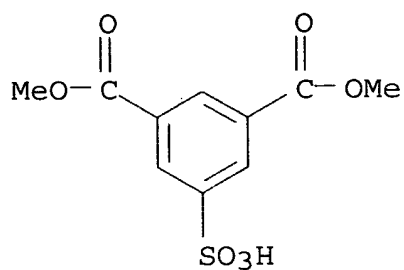
CMF C15 H22 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

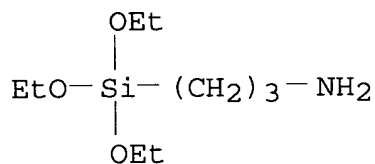


● Na

CM 4

CRN 919-30-2

CMF C9 H23 N O3 Si



CM 5

CRN 107-21-1

CMF C2 H6 O2



RN 188011-08-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-cyclohexanedimethanol, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] and 3-(triethoxysilyl)-1-propanamine (9CI) (CA INDEX NAME)

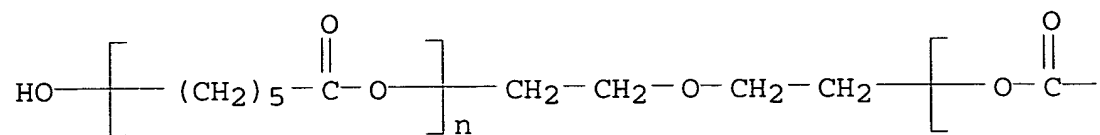
CM 1

CRN 50327-24-7

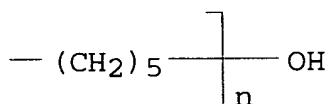
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



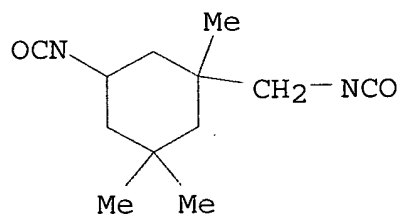
PAGE 1-B



CM 2

CRN 4098-71-9

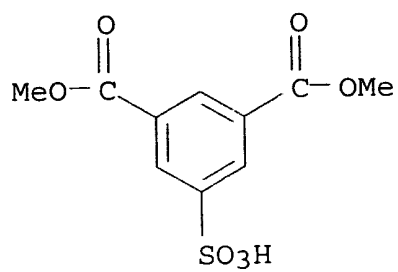
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

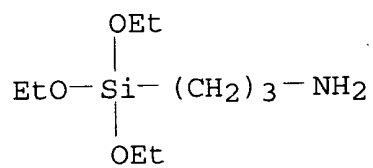


● Na

CM 4

CRN 919-30-2

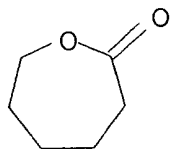
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CM 5

CRN 502-44-3

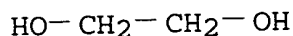
CMF C6 H10 O2



CM 6

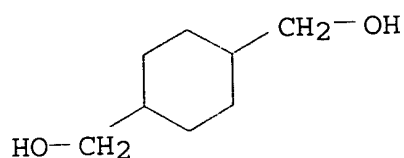
CRN 107-21-1

CMF C2 H6 O2



CM 7

CRN 105-08-8
CMF C8 H16 O2



IC ICM E01F009-04
ICS C08G018-08; C08G018-46; C08G018-71; C08G018-10; C08G018-28;
C08G018-83
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 35, 39
IT 188011-06-5P 188011-07-6P 188011-08-7P
188011-09-8P
(rubber, coating; water-dispersible silyl-terminated sulfo
group-contg. polyester-polyurethane pavement marking compns. with
good weather and abrasion resistance and marking of pavements
with them)

L71 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:488698 HCAPLUS
DOCUMENT NUMBER: 125:115551
TITLE: Low surface energy sulfo-polyurethane or
sulfo-polyurea compositions
INVENTOR(S): Larson, Wayne K.; Bennett, Richard E.;
Franchina, Nicole L.
PATENT ASSIGNEE(S): Minnesota Mining and Mfg. Co., USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 717057	A1	19960619	EP 1995-402817	19951214
EP 717057	B1	20010620		
R: DE, FR, GB, IT				
CA 2163611	AA	19960616	CA 1995-2163611	19951123
JP 08239439	A2	19960917	JP 1995-320372	19951208

US 5679754 A 19971021 US 1996-653141 19960606
 US 1994-356867 A 19941215
 PRIORITY APPLN. INFO.:
 AB A water dispersible polymeric compn. comprises at least one sulfo group contg. segment comprising at least one urethane or urea connecting group, and also comprises at least one hydrophobic segment (e.g., siloxane, fluoroalkyl, higher alkyl groups) comprising at least one urethane or urea connecting group. The compn. when dried can provide a coating on a substrate or an article having low surface energy and preferably ink receptive properties. The article can provide release capabilities towards adhesives, particularly pressure sensitive adhesives. A polymer was prepd. from 3-aminopropyl-terminated di-Me siloxane, Carbowax 600, Desmodur W, and di-Me sodium sulfoisophthalate.

IC ICM C08G018-08
 ICS C08G018-61; C08G018-38; C08G018-32
 CC 35-5 (Chemistry of Synthetic High Polymers)
 IT Siloxanes and Silicones, preparation
 (polyester-polyoxyalkylene-polyurea-polyurethane-, sulfo-contg., block, low surface energy sulfo-polyurethane or sulfo-polyurea compns.)

IT Polyureas
 (polyester-polyoxyalkylene-polyurethane-siloxane-, sulfo-contg., block, low surface energy sulfo-polyurethane or sulfo-polyurea compns.)

IT Polyoxyalkylenes, preparation
 (polyester-polyurea-polyurethane-siloxane-, sulfo-contg., block, low surface energy sulfo-polyurethane or sulfo-polyurea compns.)

IT Polyesters, preparation
 (polyoxyalkylene-polyurea-polyurethane-siloxane-, sulfo-contg., block, low surface energy sulfo-polyurethane or sulfo-polyurea compns.)

L71 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1994:411386 HCAPLUS
 DOCUMENT NUMBER: 121:11386
 TITLE: Preparation of crosslinked resin particle dispersants with water and chemical resistance and mechanical strength
 INVENTOR(S): Hashizume, Toyomi; Takayanagi, Hitoshi
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

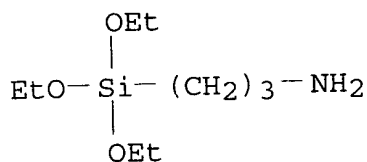
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06001846	A2	19940111	JP 1992-160983	19920619
PRIORITY APPLN. INFO.:			JP 1992-160983	19920619

AB The dispersants, useful for coatings, **inks**, and adhesives, are prepd. by addn. reaction of self water-dispersible resins with functional groups, monomers with functional groups and hydrolyzable **silyl** groups, and optional hydrophobic resins with functional groups and polycondensation in aq. media. Thus, an isocyanate-terminated self water-dispersible polyurethane prepd. from terephthalic acid, adipic acid, isophthalic acid, neopentyl glycol, ethylene glycol, IPDI, and dimethylolpropionic acid 200, .gamma.-mercaptopropyltrimethoxysilane 19, triethylamine 5.1, dibutyltin laurate 0.6, and MEK 80 parts were mixed at room temp. for 30 min and treated with H2O at 60.degree. for 60 min to obtain a crosslinked resin particle water dispersant, which was applied on a plate and baked; the resulted film showed elongation 48%, tensile strength 430 kg/cm2, water and chem. resistance, and transparency.

IT **919-30-2DP**, .gamma.-Aminopropyltriethoxysilane, reaction product with polyester-polyurethanes **155756-92-6DP**, reaction product with silanes (prepn. of, for crosslinked resin particle dispersants, films from, with water and chem. resistance and mech. strength)

RN **919-30-2 HCAPLUS**

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



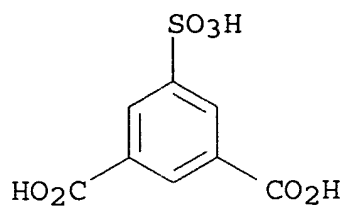
RN 155756-92-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

CMF C8 H6 O7 S . Na

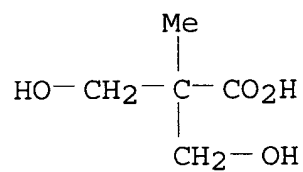


● Na

CM 2

CRN 4767-03-7

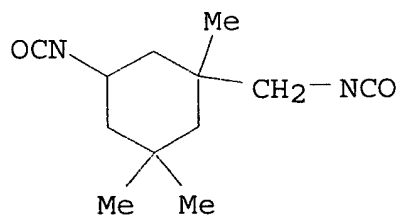
CMF C5 H10 O4



CM 3

CRN 4098-71-9

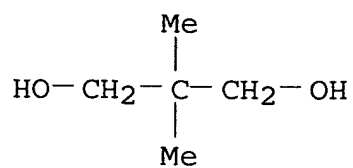
CMF C12 H18 N2 O2



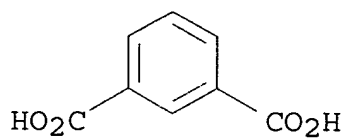
CM 4

CRN 126-30-7

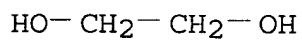
CMF C5 H12 O2



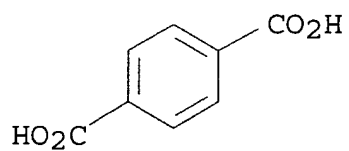
CM 5

CRN 121-91-5
CMF C8 H6 O4

CM 6

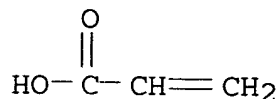
CRN 107-21-1
CMF C2 H6 O2

CM 7

CRN 100-21-0
CMF C8 H6 O4

CM 8

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08G077-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37
 ST resin particle dispersant crosslinked siloxane; water resistance polyurethane siloxane film; chem resistance siloxane polymer film; mech strength polyurethane siloxane film; silane polyurethane polycondensation film; epoxy polyester polyurethane polyaddn polycondensation; hydrolysis monomer dispersant resin particle; **silyl** monomer hydrophobic resin polycondensation; coating siloxane polyurethane water dispersant; polyester polyol addn reaction urethane
 IT **919-30-2DP**, .gamma.-Aminopropyltriethoxysilane, reaction product with polyester-polyurethanes 2897-60-1DP, .gamma.-Glycidoxypropylmethyldiethoxysilane, reaction product with polyester-polyurethanes 4420-74-0DP, .gamma.-Mercaptopropyltrimethoxysilane, reaction product with polyester-polyurethanes 25068-38-6DP, Epiclon 850, reaction product with polyester-polyurethanes 28430-18-4DP, Adipic acid-ethylene glycol-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer, reaction product with silanes 54847-49-3DP, Denacol EX 211, reaction product with polyester-polyurethanes 113148-38-2DP, Burnock DN 980, reaction product with polyester-polyurethanes 155756-91-5DP, reaction product with silanes **155756-92-6DP**, reaction product with silanes
 (prepn. of, for crosslinked resin particle dispersants, films from, with water and chem. resistance and mech. strength)

=> d 172 1-11 cbib abs hitstr hitind

L72 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
 2003:282672 Document No. 138:289133 Dry-peelable temporary protective coatings. Krepski, Larry R.; Lewandowski, Kevin M.; Mickus, Daniel E.; Rowen, Susan K.; Johnson, Stephen A. (3m Innovative Properties Company, USA). PCT Int. Appl. WO 2003029372 A2 20030410, 36 pp.
 DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US30382 20020925. PRIORITY: US 2001-970486 20011003.
 AB The dry-strippable coating compn. is incorporated into a composite

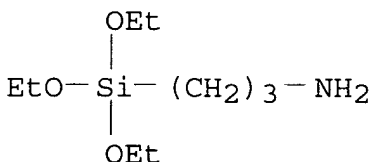
article and comprises a dried water-borne polyurethane dispersion (e.g., **aminopropyltriethoxysilyl end-capped** .epsilon.-caprolactone-diethylene glycol-dimethyl 5-sodiosulfoisophthalate-ethylene glycol-IPDI-Niax PCP 0201 copolymer) contg. a release additive comprising a releasing cosolvent having b.p. >100.degree. and/or a metal salt dispersion or a wax dispersion (e.g., glycerol). When water is removed from the polyurethane dispersion of the composite article and when the article comprises a thermoformable substrate, the article can be thermoformed to provide a shaped article. Dry-stripping the coating compn. from the substrate provides a thermoformed protective layer. The dry-strippable coatings provide temporary protection for the surface of various products and components during manuf., assembly, shipping, installation, painting, and refinishing operations.

IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products with sulfo polyester-polyurethanes 246856-69-9DP, **aminopropyltriethoxysilyl end-capped** 506426-13-7DP, **aminopropyltriethoxysilyl end-capped** 506426-15-9DP, **aminopropyltriethoxysilyl end-capped**

(dry-peelable temporary protective coatings)

RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 246856-69-9 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, Niax PCP 201, 2-oxepanone and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 97123-87-0

CMF Unspecified

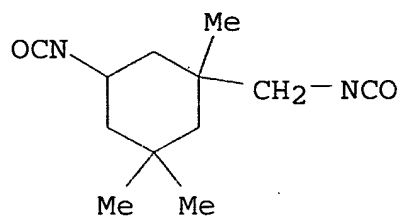
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 4098-71-9

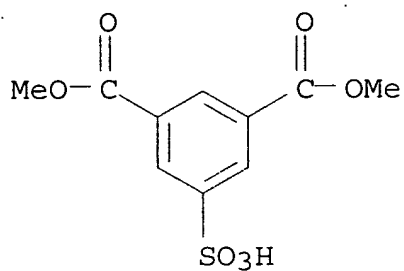
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

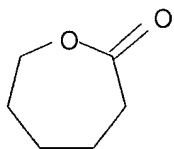


● Na

CM 4

CRN 502-44-3

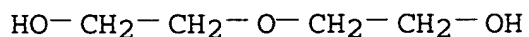
CMF C6 H10 O2



CM 5

CRN 111-46-6

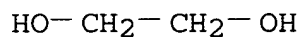
CMF C4 H10 O3



CM 6

CRN 107-21-1

CMF C2 H6 O2



RN 506426-13-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, Niox PCP 201, 2-oxepanone and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 97123-87-0

CMF Unspecified

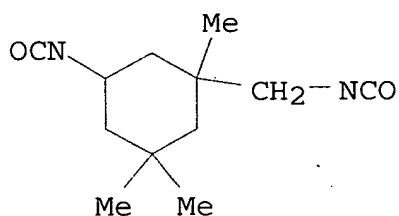
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 4098-71-9

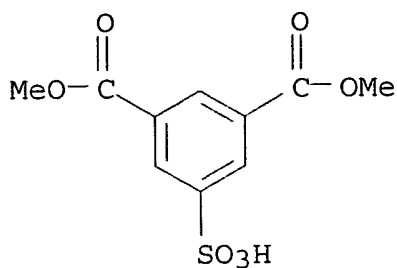
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

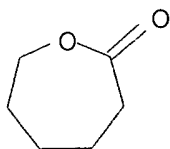
CMF C10 H10 O7 S . Na



● Na

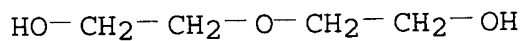
CM 4

CRN 502-44-3
CMF C6 H10 O2



CM 5

CRN 111-46-6
CMF C4 H10 O3



RN 506426-15-9 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and Niox PCP 201 (9CI) (CA INDEX NAME)

CM 1

CRN 97123-87-0
CMF Unspecified
CCI PMS, MAN

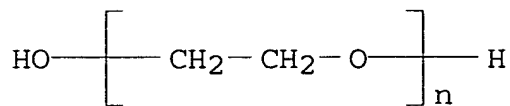
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

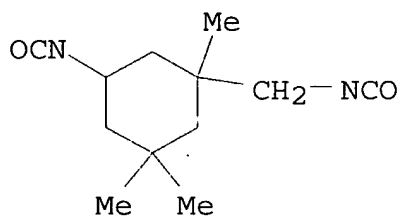
CCI PMS



CM 3

CRN 4098-71-9

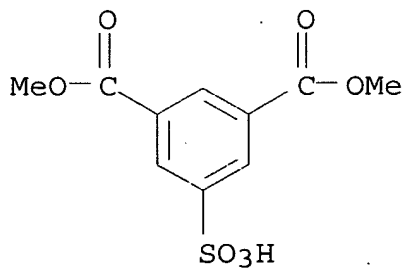
CMF C12 H18 N2 O2



CM 4

CRN 3965-55-7

CMF C10 H10 O7 S . Na



Na

CM 5

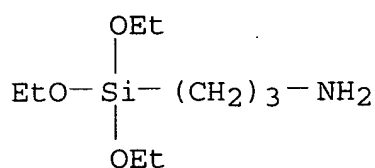
CRN 107-21-1
CMF C2 H6 O2

$$\text{HO}-\text{CH}_2-\text{CH}_2-\text{OH}$$

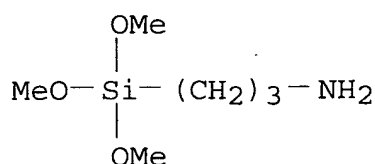
- IC ICM C09D175-04
CC 42-10 (Coatings, Inks, and Related Products)
IT Polyurethanes, uses
(polyester-, carboxylate, **silyl-terminated**;
dry-peelable temporary protective coatings)
IT Polyurethanes, uses
(polyester-, sulfo, **silyl-terminated**;
dry-peelable temporary protective coatings)
IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products
with sulfo polyester-polyurethanes 24980-41-4DP, Polycaprolactone,
diol, polymers 25248-42-4DP, Polycaprolactone, diol, polymers
246856-69-9DP, **aminopropyltriethoxysilyl**
end-capped 506426-13-7DP,
aminopropyltriethoxysilyl end-capped
506426-15-9DP, **aminopropyltriethoxysilyl**
end-capped 506435-64-9DP,
aminopropyltriethoxysilyl end-capped
507276-40-6DP, **aminopropyltriethoxysilyl end-**
capped
(dry-peelable temporary protective coatings)
- L72 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
2002:778522 Document No. 137:299550 **Silylated**
polyurethane-urea compositions for use in cosmetic applications.
Mallo, Richard A.; Kantner, Steven S.; Lewandowski, Kevin M.;
Krepiski, Larry R. (3M Innovative Properties Company, USA). U.S.
Pat. Appl. Publ. US 2002146382 A1 20021010, 14 pp. (English).
CODEN: USXXCO. APPLICATION: US 2001-771054 20010126.
- AB A compn. in the form of an aq. dispersion used in cosmetic
applications is provided. The compn. comprises at least one
polyurethane-urea polymer that is functionalized with at least one
hydrolyzed or hydrolyzable **silyl** group. When the compn.
is used in hair care, it does not have a reshapable effect. A
silanol terminated polyurethane-urea was prepd. from
polycaprolactone Na sulfoisophthalate, polycaprolactone diol,
ethylene glycol, diethylene glycol, isophorone diisocyanate, MEK,
dibutyltin dilaurate, and 3-aminopropyltriethoxysilane. Cosmetic
comps. are also given.
- IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products
with polyurethane-urea 13822-56-5DP, 3-
Aminopropyltrimethoxysilane, reaction products with
polyurethane-urea 25147-91-5DP, reaction products with

polyurethane-urea 222405-56-3DP,
 aminopropyltriethoxysilyl end-capped
 467468-24-2DP, aminopropyltriethoxysilyl
 end-capped 467468-25-3DP,
 aminopropyltriethoxysilyl end-capped
 467468-26-4DP, aminopropyltriethoxysilyl
 end-capped 467468-27-5DP,
 aminopropyltriethoxysilyl end-capped
 (silylated polyurethane-urea compns. for cosmetic use)

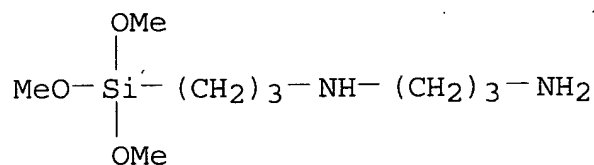
RN 919-30-2 HCAPLUS
 CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 13822-56-5 HCAPLUS
 CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



RN 25147-91-5 HCAPLUS
 CN 1,3-Propanediamine, N-[3-(trimethoxysilyl)propyl]- (8CI, 9CI) (CA INDEX NAME)

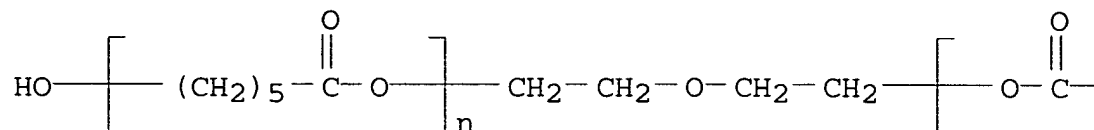


RN 222405-56-3 HCAPLUS
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI) (CA INDEX NAME)

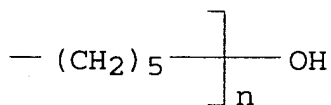
CM 1

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

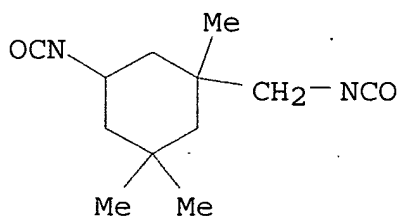


PAGE 1-B



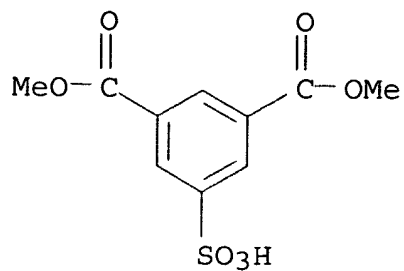
CM 2

CRN 4098-71-9
 CMF C12 H18 N2 O2



CM 3

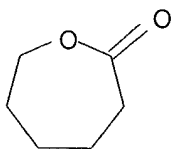
CRN 3965-55-7
 CMF C10 H10 O7 S . Na



● Na

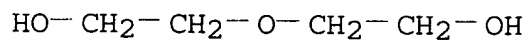
CM 4

CRN 502-44-3
CMF C6 H10 O2



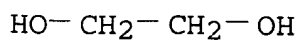
CM 5

CRN 111-46-6
CMF C4 H10 O3



CM 6

CRN 107-21-1
CMF C2 H6 O2



RN 467468-24-2 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium

salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] ,
block (9CI) (CA INDEX NAME)

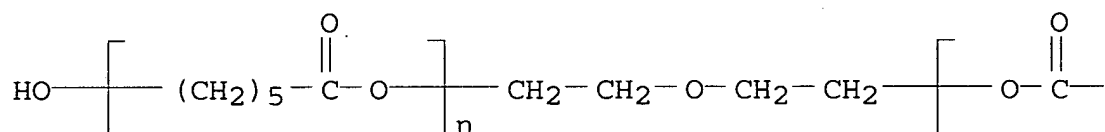
CM 1

CRN 50327-24-7

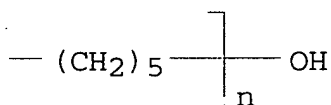
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



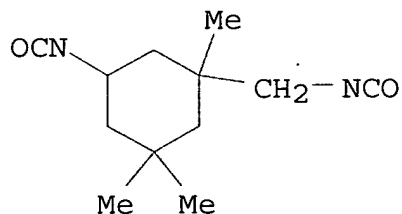
PAGE 1-B



CM 2

CRN 4098-71-9

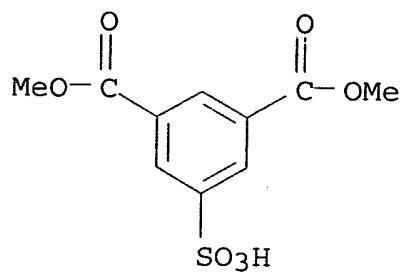
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

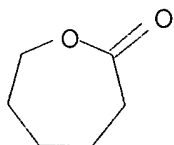
CMF C10 H10 O7 S . Na



● Na

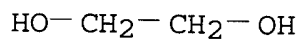
CM 4

CRN 502-44-3
 CMF C6 H10 O2



CM 5

CRN 107-21-1
 CMF C2 H6 O2

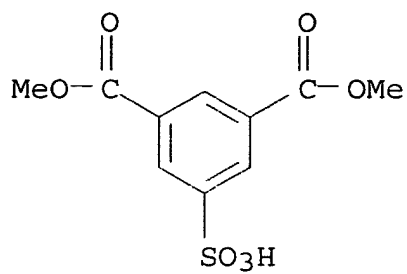


RN 467468-25-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-decanediol, 1,6-diisocyanatohexane and 2-oxepanone, block (9CI) (CA INDEX NAME)

CM 1

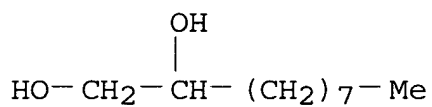
CRN 3965-55-7
 CMF C10 H10 O7 S . Na



● Na

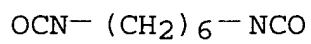
CM 2

CRN 1119-86-4
CMF C10 H22 O2



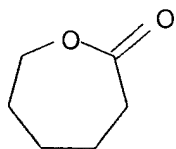
CM 3

CRN 822-06-0
CMF C8 H12 N2 O2



CM 4

CRN 502-44-3
CMF C6 H10 O2



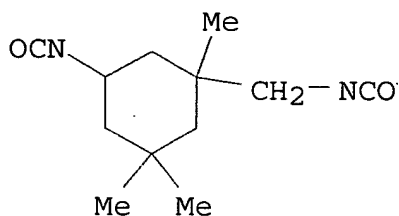
RN 467468-26-4 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepanone, block (9CI) (CA INDEX NAME)

CM 1

CRN 4098-71-9

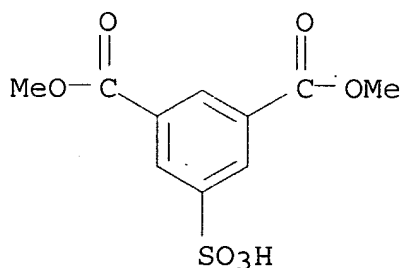
CMF C12 H18 N2 O2



CM 2

CRN 3965-55-7

CMF C10 H10 O7 S . Na

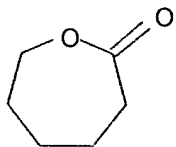


● Na

CM 3

CRN 502-44-3

CMF C6 H10 O2

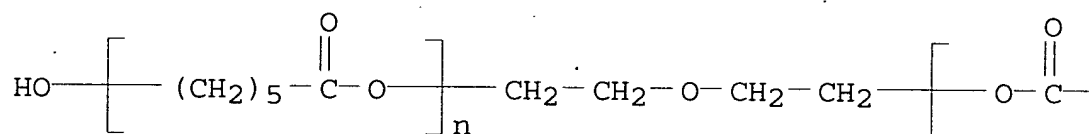


RN 467468-27-5 HCAPLUS
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol; 1,1'-methylenebis[4-isocyanatocyclohexane], 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI) (CA INDEX NAME)

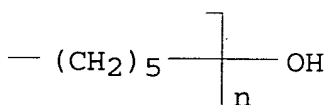
CM 1

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

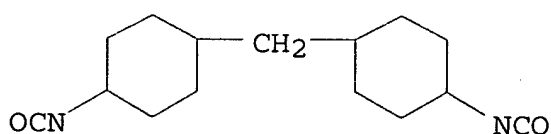


PAGE 1-B



CM 2

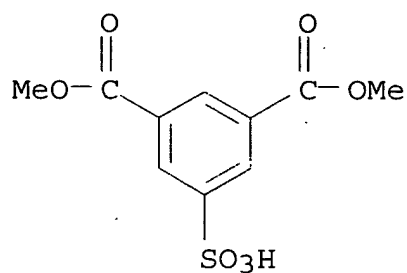
CRN 5124-30-1
 CMF C15 H22 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

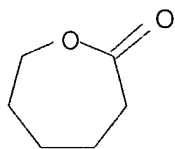


● Na

CM 4

CRN 502-44-3

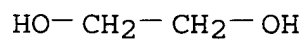
CMF C6 H10 O2



CM 5

CRN 107-21-1

CMF C2 H6 O2



IC ICM A61K007-06

ICS C08G077-04; A61K007-11

NCL 424070122

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 35

ST **silylated** polyurethane urea prepn cosmetic

- IT Polyurethanes, biological studies
(polyurea-; **silylated** polyurethane-urea compns. for
cosmetic use)
- IT Polyureas
(polyurethane-; **silylated** polyurethane-urea compns. for
cosmetic use)
- IT Cosmetics
Hair preparations
(**silylated** polyurethane-urea compns. for cosmetic use)
- IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products
with polyurethane-urea 13497-18-2DP, Bis(3-
triethoxysilylpropyl)amine, reaction products with
polyurethane-urea 13822-56-5DP, 3-
Aminopropyltrimethoxysilane, reaction products with
polyurethane-urea 14814-09-6DP, 3-Mercaptopropyltriethoxysilane,
reaction products with polyurethane-urea 15396-00-6DP,
3-Isocyanatopropyltrimethoxysilane, reaction products with
polyurethane-urea 24801-87-4DP, reaction products with
polyurethane-urea 25147-91-5DP, reaction products with
polyurethane-urea 31001-77-1DP, reaction products with
polyurethane-urea 42965-90-2DP, reaction products with
polyurethane-urea 45189-99-9DP, reaction products with
polyurethane-urea 83349-38-6DP, reaction products with
polyurethane-urea 222405-56-3DP,
aminopropyltriethoxysilyl end-capped
444313-66-0DP, reaction products with polyurethane-urea
467468-24-2DP, **aminopropyltriethoxysilyl**
end-capped 467468-25-3DP,
aminopropyltriethoxysilyl end-capped
467468-26-4DP, **aminopropyltriethoxysilyl**
end-capped 467468-27-5DP,
aminopropyltriethoxysilyl end-capped
467468-28-6DP, **aminopropyltriethoxysilyl end-**
capped
(**silylated** polyurethane-urea compns. for cosmetic use)

L72 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
2002:730314 Document No. 137:249264 Scented **ink** composition
and its preparation. Vernardakis, Theodore G.; Nasilevich, Natan
(BCM Inks USA Incorporated, USA). U.S. US 6454842 B1 20020924, 6
pp. (English). CODEN: USXXAM. APPLICATION: US 2001-933501
20010820.

AB A scented **ink** compn. is made by (a) prepg. a mixt. which
includes a polymer component consisting of a water-sol. polymer
selected from acrylic, styrene-maleic anhydride, **sulfonated**
polyester, polyamide, and **polyurethane**, (b) adding
a color component selected from a pigment and a dye, (c) adding a
solvent component comprising H₂O, (d) stirring and adding oil-based
fragrance to form a microemulsion, where the resin stabilizes the
microdroplets of the oil-based fragrance by coating the
microdroplets. Preferably, the microdroplets have a diam.
.apprx.0.1-1.0 .mu.m.

IC ICM C09D001-00
 ICS C08F002-32
 NCL 106031020
 CC 42-12 (Coatings, Inks, and Related Products)
 ST scented microemulsion **ink** polymer colorant fragrance
 IT Dyes
 (acid; scented **ink** compn. of water-sol. polymer,
 colorant, and oil-based fragrance)
 IT Dyes
 (basic; scented **ink** compn. of water-sol. polymer,
 colorant, and oil-based fragrance)
 IT Dyes
 (direct; scented **ink** compn. of water-sol. polymer,
 colorant, and oil-based fragrance)
 IT **Inks**
 (microemulsion; scented **ink** compn. of water-sol.
 polymer, colorant, and oil-based fragrance)
 IT Cherry
 Chocolate
 Coffee (Coffea)
 Disperse dyes
 Lemon (Citrus limon)
 Peppermint (Mentha piperita)
 Perfumes
 Pigments, nonbiological
 (scented **ink** compn. of water-sol. polymer, colorant,
 and oil-based fragrance)
 IT Carbon black, uses
 Polyamides, uses
 Polyurethanes, uses
 (scented **ink** compn. of water-sol. polymer, colorant,
 and oil-based fragrance)
 IT Polyesters, uses
 (sulfo-contg.; scented **ink** compn. of water-sol.
 polymer, colorant, and oil-based fragrance)
 IT Fluoropolymers, uses
 (wax; scented **ink** compn. of water-sol. polymer,
 colorant, and oil-based fragrance)
 IT 1332-37-2, Iron oxide, uses 13463-67-7, Titanium oxide, uses
 25585-77-7, Joncryl 678 113988-67-3, Eastek 1300 117347-69-0,
 NeoCryl A 6037 173359-06-3, Joncryl SCX-2630 194369-07-8, Eastek
 2140 224565-89-3, Joncryl ECO-2177
 (scented **ink** compn. of water-sol. polymer, colorant,
 and oil-based fragrance)
 IT 9002-84-0, Polytetrafluoroethylene 9002-88-4, Polyethylene
 9003-07-0, Polypropylene
 (wax; scented **ink** compn. of water-sol. polymer,
 colorant, and oil-based fragrance)

L72 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
 1999:672671 Document No. 131:287510 Abrasive article with tie coat and
 method. Kincaid, Don H.; Culler, Scott R.; Krepski, Larry R.;

Mickus, Daniel E. (Minnesota Mining and Manufacturing Company, USA).

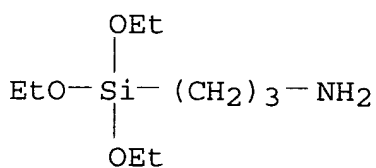
PCT Int. Appl. WO 9952676 A1 19991021, 57 pp. DESIGNATED STATES:
 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
 DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
 MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW:
 AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,
 GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English).
 CODEN: PIXXD2. APPLICATION: WO 1999-US6828 19990329. PRIORITY: US
 1998-59118 19980413.

AB An abrasive article is provided that includes a tie coat which improves adhesion between an abrasive layer and a backing in the abrasive article. The tie coat is preferably formed from a tie coat precursor comprising a sulfopoly(ester-urethane) component comprising in its backbone at least one non-terminal arylene or alkylene group comprising a pendant sulfonic acid group or salt, said aliph. or arom. group being bonded directly to ester groups and wherein the polymer is terminated by at least one hydrolyzable silyl group. Preferably, the abrasive article is a structured abrasive article. Also provided is a method for making an abrasive article.

IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products with sulfo polyester-polyurethanes 246856-69-9DP, Dimethyl 5-sodiosulfoisophthalate-diethylene glycol-.epsilon.-caprolactone-PCP 201-ethylene glycol-isophorone diisocyanate copolymer, reaction products with aminosilanes
 (abrasive article with tie coat and method)

RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 246856-69-9 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, Nias PCP 201, 2-oxepanone and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 97123-87-0

CMF Unspecified

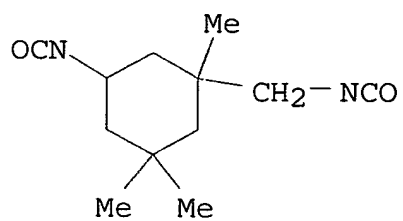
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 4098-71-9

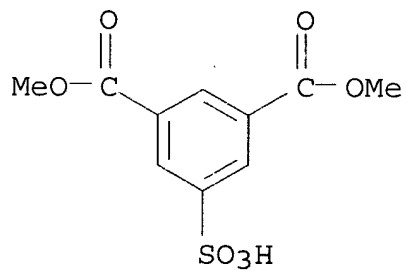
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

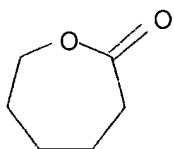


● Na

CM 4

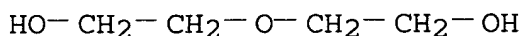
CRN 502-44-3

CMF C6 H10 O2



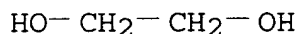
CM 5

CRN 111-46-6
CMF C4 H10 O3



CM 6

CRN 107-21-1
CMF C2 H6 O2



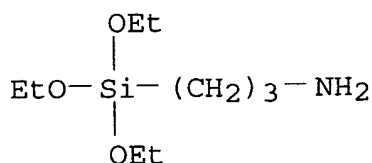
IC ICM B24D003-28
ICS B24D011-00; C08G018-10; C08G018-28; C08G018-08
CC 38-3 (Plastics Fabrication and Uses)
IT **919-30-2DP**, 3-Aminopropyltriethoxysilane, reaction products with sulfo polyester-polyurethanes **246856-69-9DP**, Dimethyl 5-sodiosulfoisophthalate-diethylene glycol-.epsilon.-caprolactone-PCP 201-ethylene glycol-isophorone diisocyanate copolymer, reaction products with aminosilanes
(abrasive article with tie coat and method)

L72 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
1999:222974 Document No. 130:283469 **Silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption, their preparation and use in paints. Krepski, Larry R.; Heilmann, Steven M.; Mickus, Daniel E.; Larson, Wayne K. (Minnesota Mining and Manufacturing Company, USA). PCT Int. Appl. WO 9915572 A1 19990401, 55 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US11833 19980609. PRIORITY: US 1997-937487 19970925.

AB The sulfo-contg. polyester-polyurethanes (A) are prep'd. from a chain-extended sulfopolyester polyol which itself has been prep'd. in a 2-step method, the A comprising in the backbone .gtoreq.1 nonterminal arylene or alkylene group having a pendant SO3H group or its salt which is bonded directly through the aliph. or arom. group to ester groups, the A being terminated by .gtoreq.1 hydrolyzable **silyl** group; the 2-step method for prep'g. the chain-extended

sulfopolyester polyol comprises (a) condensing a sulfopolycarboxylic acid or ester with a polyol to produce a sulfopolyester polyol and (b) chain-extending with a lower aliph. lactone; the product is then polymd. with a polyisocyanate and a polyol, polyamine, and/or polythiol, and the polymer terminated by reaction with a hydrolyzable silane. The products may be used as binders in paints, esp. traffic-marking paints. Thus, 0.25 mol di-Me 5-(sodiosulfo)isophthalate was transesterified with 1.25 mol 1,4-cyclohexanedimethanol, and the resulting mixt. was condensed with 2.0 mol .epsilon.-caprolactone to give a polyol mixt. of which 25 mol% was sulfonated. The polyol mixt. (55.9 g) was polymd. with PCP 0201 62.9, ethylene glycol 5.58, and isophorone diisocyanate 79.9 g and terminated by reaction with 11.7 g H₂N(CH₂)₃Si(OEt)₃ to give a polymer from which was cast a film with Tg 29.degree., tensile strength 28.6 MPa, and elongation 341%.

- IT 919-30-2DP, (3-Aminopropyl)triethoxysilane, reaction products with polyester-polyurethanes 222169-91-7DP, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate block copolymer, hydrolyzable **silyl** group-terminated 222169-92-8DP, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylenediamine-isophorone diisocyanate block copolymer, hydrolyzable **silyl** group-terminated 222405-52-9DP, .epsilon.-Caprolactone-1,4-cyclohexanedimethanol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl** group-terminated 222405-56-3DP, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl** group-terminated 222405-61-0DP, 1,4-Butanediol-.epsilon.-caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl** group-terminated 222532-15-2DP, hydrolyzable **silyl** group-terminated (silyl-terminated sulfopolyester-polyurethanes with reduced water absorption for use in paints)
- RN 919-30-2 HCAPLUS
- CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



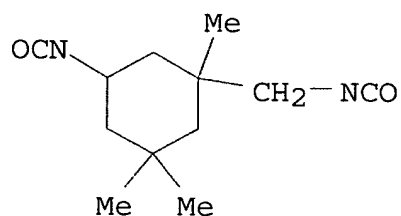
- RN 222169-91-7 HCAPLUS
- CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium

salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol], block (9CI) (CA INDEX NAME)

CM 1

CRN 4098-71-9

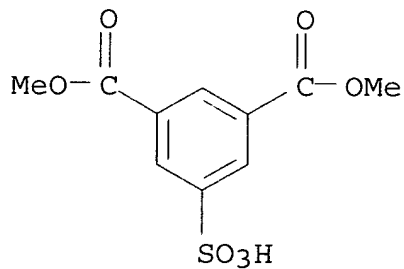
CMF C12 H18 N2 O2



CM 2

CRN 3965-55-7

CMF C10 H10 O7 S . Na

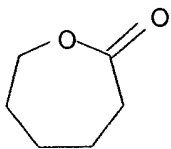


● Na

CM 3

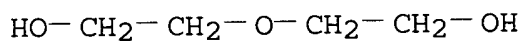
CRN 502-44-3

CMF C6 H10 O2



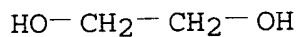
CM 4

CRN 111-46-6
CMF C4 H10 O3



CM 5

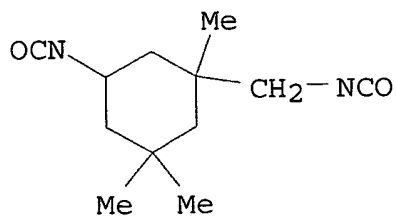
CRN 107-21-1
CMF C2 H6 O2



RN 222169-92-8 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediamine, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol], block (9CI) (CA INDEX NAME)

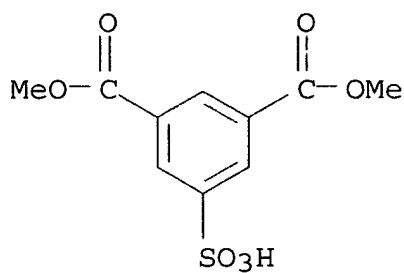
CM 1

CRN 4098-71-9
CMF C12 H18 N2 O2



CM 2

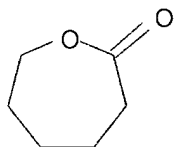
CRN 3965-55-7
 CMF C10 H10 O7 S . Na



● Na

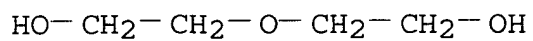
CM 3

CRN 502-44-3
 CMF C6 H10 O2



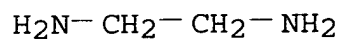
CM 4

CRN 111-46-6
 CMF C4 H10 O3



CM 5

CRN 107-15-3
 CMF C2 H8 N2

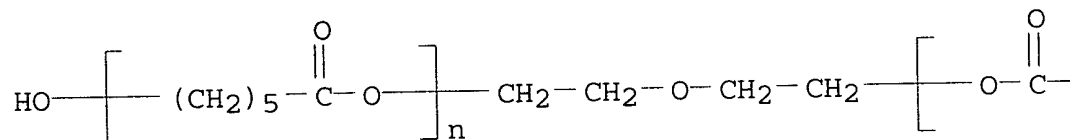


RN 222405-52-9 HCAPLUS
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-cyclohexanedimethanol, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI) (CA INDEX NAME)

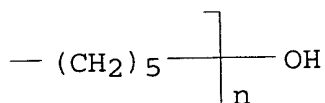
CM 1

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

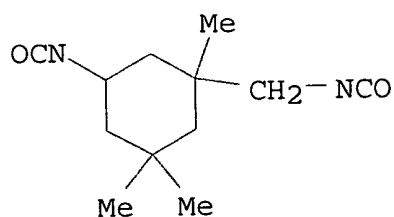


PAGE 1-B



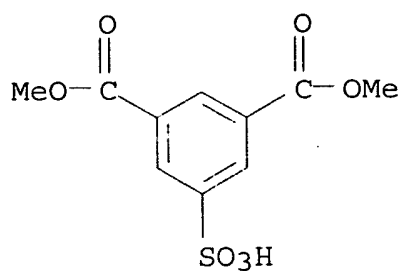
CM 2

CRN 4098-71-9
 CMF C12 H18 N2 O2



CM 3

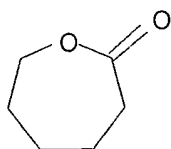
CRN 3965-55-7
CMF C10 H10 O7 S . Na



● Na

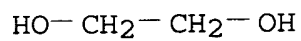
CM 4

CRN 502-44-3
CMF C6 H10 O2



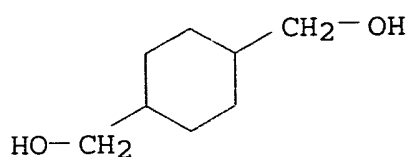
CM 5

CRN 107-21-1
CMF C2 H6 O2



CM 6

CRN 105-08-8
CMF C8 H16 O2



RN 222405-56-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI) (CA INDEX NAME)

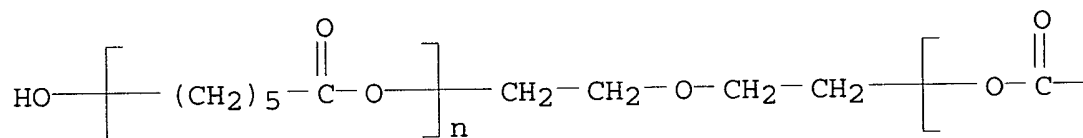
CM 1

CRN 50327-24-7

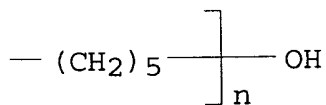
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



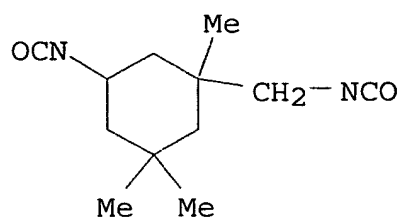
PAGE 1-B



CM 2

CRN 4098-71-9

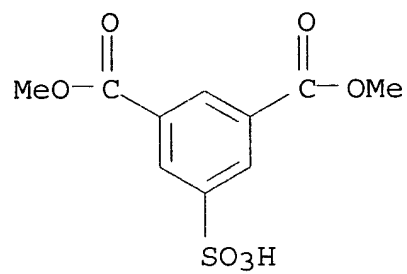
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

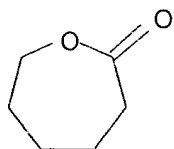


● Na

CM 4

CRN 502-44-3

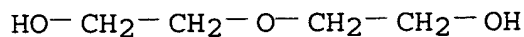
CMF C6 H10 O2



CM 5

CRN 111-46-6

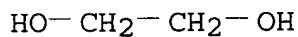
CMF C4 H10 O3



CM 6

CRN 107-21-1

CMF C2 H6 O2



RN 222405-61-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-butanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI) (CA INDEX NAME)

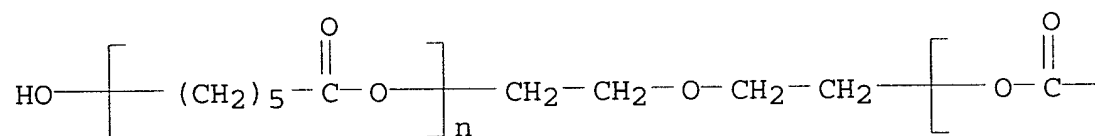
CM 1

CRN 50327-24-7

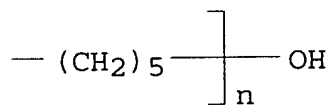
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

CCI PMS

PAGE 1-A



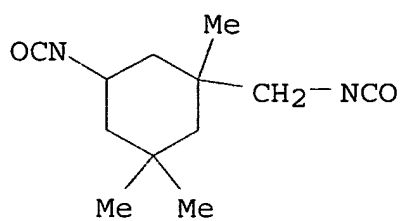
PAGE 1-B



CM 2

CRN 4098-71-9

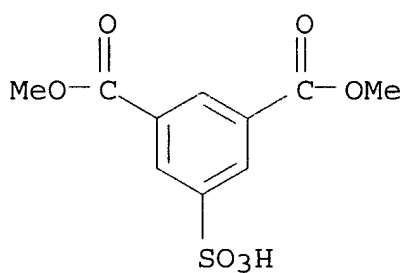
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7

CMF C10 H10 O7 S . Na

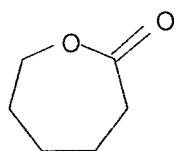


● Na

CM 4

CRN 502-44-3

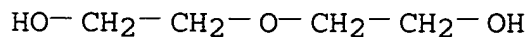
CMF C6 H10 O2



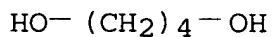
CM 5

CRN 111-46-6

CMF C4 H10 O3



CM 6

CRN 110-63-4
CMF C4 H10 O2

RN 222532-15-2 HCAPLUS

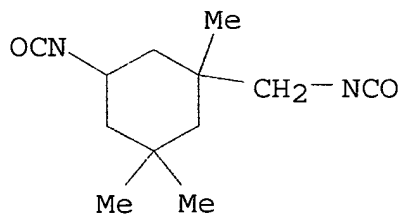
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and PC 1667, block (9CI) (CA INDEX NAME)

CM 1

CRN 222531-89-7
CMF Unspecified
CCI PMS, MAN

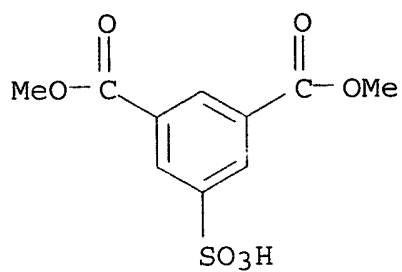
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 4098-71-9
CMF C12 H18 N2 O2

CM 3

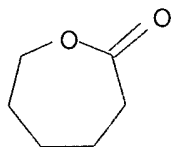
CRN 3965-55-7
CMF C10 H10 O7 S . Na



● Na

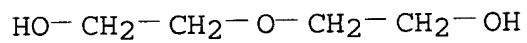
CM 4

CRN 502-44-3
CMF C6 H10 O2



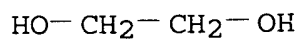
CM 5

CRN 111-46-6
CMF C4 H10 O3



CM 6

CRN 107-21-1
CMF C2 H6 O2



IC ICM C08G018-08
ICS C08G018-46; C08G018-71; C08G018-83; C08G018-10

CC 42-10 (Coatings, Inks, and Related Products)
ST polyester polyurethane sulfo contg **silyl terminated**; water resistance polyester polyurethane
IT Polyurethanes, uses
(polyester-, sulfo-contg.; **silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)
IT Polyurethanes, uses
(polyester-polyether-, sulfo-contg.; **silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)
IT Polyurethanes, uses
(polyester-polyether-polyurea-, sulfo-contg.; **silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)
IT Coating materials
(water-resistant, paints; **silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)
IT Paints
(water-resistant; **silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)
IT **919-30-2DP**, (3-Aminopropyl)triethoxysilane, reaction products with polyester-polyurethanes **222169-91-7DP**, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate block copolymer, hydrolyzable **silyl group-terminated** **222169-92-8DP**, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylenediamine-isophorone diisocyanate block copolymer, hydrolyzable **silyl group-terminated** **222405-52-9DP**, .epsilon.-Caprolactone-1,4-cyclohexanedimethanol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl group-terminated** **222405-56-3DP**, .epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl group-terminated** **222405-61-0DP**, 1,4-Butanediol-.epsilon.-caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-isophorone diisocyanate-Tone 0201 block copolymer, hydrolyzable **silyl group-terminated** **222532-15-2DP**, hydrolyzable **silyl group-terminated**
(**silyl-terminated** sulfopolyester-polyurethanes with reduced water absorption for use in paints)

L72 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
1997:207647 Document No. 126:200739 **Silyl-terminated** sulfonated poly(ester-urethane) compounds useful for low surface energy coatings. Larson, Wayne K.; Heilmann, Steven M.; Krepski,

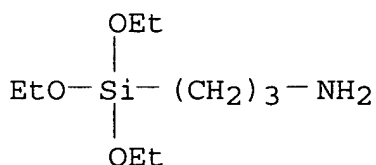
Larry R.; Mickus, Daniel E.; Smith, Howell K., III; Purgett, Mark D.; Borden, Thomas R.; May, David C.; Jacobs, Gregory F.; Hachey, Kathleen A.; Velamakanni, Bhaskar V.; Menzies, Robert H.; Eastin, Brian C.; Schultz, William J. (Minnesota Mining and Mfg. Co., USA). PCT Int. Appl. WO 9703101 A1 19970130, 32 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US10881 19960625. PRIORITY: US 1995-954 19950707; US 1996-609193 19960301.

AB Water-dispersible sulfonated poly(ester-urethane) compds. comprise, in their backbone, at least one arylene or alkylene sulfonic acid group or a salt thereof, the polymer being terminated by at least one hydrolyzable silyl group. The compds. preferably have a sulfonate equiv. wt. of 500-12,000 g/equiv. and a no. av. mol. wt. <50,000. The compds. have utility as durable treatments such as low surface energy coatings that exhibit release towards adhesive materials, grease, and oils. Heating di-Me sodiosulfoisophthalate, polycaprolactone diol (I), and Ti(BuO)₄ at 230.degree. for 4 h, heating the resulting mixt. with addnl. I, ethylene glycol, and MEK, distg. off the MEK, heating with bis(4-cyanatocyclohexyl)methane at 72-85.degree. for 1 h, reacting with 3-aminopropyltriethoxysilane in MEK gave a silanol, and distg. with water gave a 54%-solids dispersion of silanol-terminated poly(ester urethane). A spun cast film of the dispersion exhibited Tg 36.degree. and tensile strength 17.4 MPa at 390% elongation.

IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction product with polyester polyurethane 13822-56-5DP, reaction product with polyester polyurethane 187840-99-9DP, Dimethyl 5-sodiosulfoisophthalate-1,4-cyclohexanedimethanol-.epsilon.-caprolactone-ethylene glycol-isophorone diisocyanate copolymer, silyl-terminated (silyl-terminated sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)

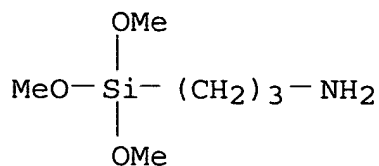
RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 13822-56-5 HCAPLUS

CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



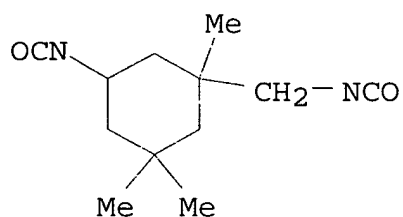
RN 187840-99-9 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-cyclohexanedimethanol, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepanone (9CI) (CA INDEX NAME)

CM 1

CRN 4098-71-9

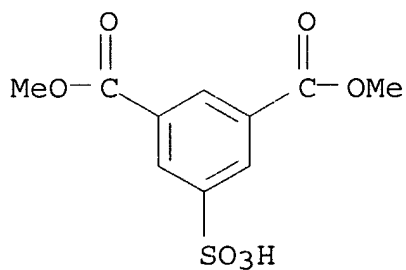
CMF C12 H18 N2 O2



CM 2

CRN 3965-55-7

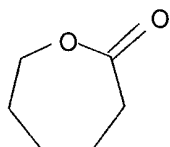
CMF C10 H10 O7 S . Na



Na

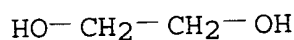
CM 3

CRN 502-44-3
CMF C6 H10 O2



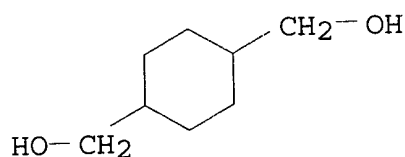
CM 4

CRN 107-21-1
CMF C2 H6 O2



CM 5

CRN 105-08-8
CMF C8 H16 O2



- IC ICM C08G018-08
ICS C08G018-46; C08G018-71; C08G018-10; C08G018-28; C08G018-83;
C09D175-06
- CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 35
- ST **silyl terminated** polyester polyurethane release
coating; dimethyl sodiosulfoisophthalate polycaprolactone polyester
polyurethane; biscyanatocyclohexylmethane polyester polyurethane
silyl terminated
- IT Coating materials
(antisoiling; **silyl-terminated** sulfonated
poly(ester-urethane) compds. useful for low surface energy
coatings)
- IT Polyurethanes, uses
Polyurethanes, uses
Polyurethanes, uses

- (polyester-polysiloxane-; **silyl-terminated** sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)
- IT Polysiloxanes, uses
Polysiloxanes, uses
Polysiloxanes, uses
(polyester-polyurethane-; **silyl-terminated** sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)
- IT Polyesters, uses
Polyesters, uses
Polyesters, uses
(polyurethane-polysiloxane-; **silyl-terminated** sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)
- IT Release coatings
(**silyl-terminated** sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)
- IT 107-21-1DP, 1,2-Ethanediol, polyester polyurethane, **silyl-terminated**, uses 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction product with polyester polyurethane 3965-55-7DP, Dimethyl 5-sodiosulfoisophthalate, polyester polyurethane, **silyl-terminated** 4098-71-9DP, Isophorone diisocyanate, polyester polyurethane, **silyl-terminated** 5124-30-1DP, polyester polyurethane, **silyl-terminated** 13822-56-5DP, reaction product with polyester polyurethane 24801-88-5DP, .gamma.-Isocyanatopropyltriethoxysilane, reaction product with polyester polyurethane 24980-41-4DP, Polycaprolactone, diol derivs., polyurethanes, **silyl-terminated** 25037-57-4DP, Octamethylcyclotetrasiloxane homopolymer, aminopropyl-terminated, reaction products with sulfonated polyester-polyurethane 25248-42-4DP, Polycaprolactone, diol derivs., polyurethanes, **silyl-terminated** 187840-99-9DP, Dimethyl 5-sodiosulfoisophthalate-1,4-cyclohexanedimethanol-.epsilon.-caprolactone-ethylene glycol-isophorone diisocyanate copolymer, **silyl-terminated**
(**silyl-terminated** sulfonated poly(ester-urethane) compds. useful for low surface energy coatings)

L72 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
1995:985924 Document No. 124:11106 Binder for coating materials containing dispersed inorganic powder, the coating material, and a magnetic recording medium. Yamakawa, Masahiro; Akimoto, Kenji; Nakamura, Katsuya; Takano, Fumio; Takasaki, Takahiro (Nippon Zeon Co., Ltd., Japan). Eur. Pat. Appl. EP 673956 A1 19950927, 39 pp. DESIGNATED STATES: R: DE, FR, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1995-103368 19950309. PRIORITY: JP 1994-67923 19940311; JP 1994-72468 19940317; JP 1994-259265 19940929; JP

1994-262047 19940930.

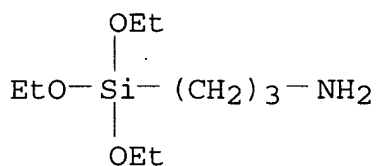
AB A binder for coating materials contg. dispersed inorg. (magnetic) powder comprises a polyurethane resin contg. (a) 2.2-7.0 terminal epoxy groups/mol. on av. and (b) 0.1-5.0 wt.% (as SO₃-) sulfonic acid salt groups, 0.05-3.0 wt.% (as CO₂-) carboxylic acid salt groups, or 0.02-1.0 wt.% (as N⁺) quaternary ammonium salt groups in the mol., and having no.-av. mol. wt. 2000-10,000. A coating material contg. dispersed inorg. powder and a magnetic recording medium both use this binder. In a recording medium comprising a magnetic layer on a nonmagnetic substrate, the magnetic layer comprises (A) a polyurethane resin as a binder, (B) a vinyl chloride polymer contg. 0.1-20 wt.% epoxy groups and having av. d.p. 100-500 as a 2nd binder, (C) an alicyclic acid anhydride as a crosslinking agent, and (E) a tertiary amine as catalyst, at least one of the binders being crosslinked by a reaction between the epoxy groups in which components C and E take part. The magnetic recording material prep'd. by using magnetic powder as the inorg. powder and crosslinking the binder is excellent in dispersion of the magnetic powder and smoothness of the surface.

IT 919-30-2, TSL 8331

(crosslinking agent for epoxy-contg. polyurethane binder for coating materials contg. dispersed inorg. powder)

RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IT 171429-24-6D, reaction products with epoxypropanol
(polyurethane binder for coating materials contg. dispersed inorg. powder)

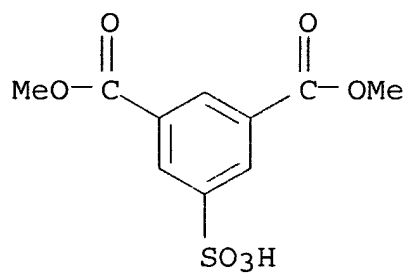
RN 171429-24-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-butanediol, 2,4-diisocyanato-1-methylbenzene, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, hexanedioic acid and 1,1'-methylenebis[4-isocyanatobenzene], block (9CI) (CA INDEX NAME)

CM 1

CRN 3965-55-7

CMF C10 H10 O7 S . Na

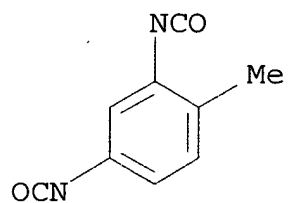


● Na

CM 2

CRN 584-84-9

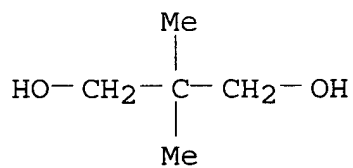
CMF C9 H6 N2 O2



CM 3

CRN 126-30-7

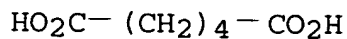
CMF C5 H12 O2



CM 4

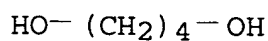
CRN 124-04-9

CMF C6 H10 O4



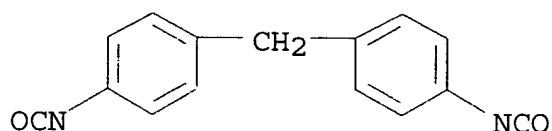
CM 5

CRN 110-63-4
CMF C4 H10 O2



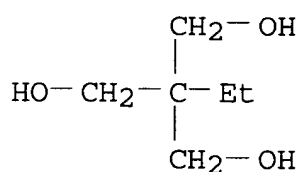
CM 6

CRN 101-68-8
CMF C15 H10 N2 O2



CM 7

CRN 77-99-6
CMF C6 H14 O3



- IC ICM C08G018-10
ICS C08G018-28; C08G018-86; C08G018-08; G11B005-702; C09D175-04
- CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 77
- IT 85-44-9, 1,3-Isobenzofurandione 111-40-0, Diethylenetriamine
124-09-4, 1,6-Hexanediamine, uses 919-30-2, TSL 8331
29529-99-5, Zisnet DB 39278-79-0, Coronate L
(crosslinking agent for epoxy-contg. polyurethane binder for
coating materials contg. dispersed inorg. powder)
- IT 54-21-7D, Sodium salicylate, reaction products with
isocyanate-terminated polyurethane 124-28-7D,
Dimethylstearylamine, reaction products with epoxy-terminated

polyurethanes 556-52-5D, Glycidol, reaction products with isocyanate-terminated polyurethane 27043-36-3D, Glycerol diglycidyl ether, reaction products with isocyanate-terminated polyurethane **171429-24-6D**, reaction products with epoxypropanol 171429-25-7D, bisulfite addn. product, reaction products with glycerol diglycidyl ether 171429-26-8D, reaction products with epoxypropanol and sodium salicylate (polyurethane binder for coating materials contg. dispersed inorg. powder)

- L72 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
 1991:431120 Document No. 115:31120 What's new in non-acrylic polymers. Podhajny, Richard M. (Graphic Arts Ind., Rockaway, NJ, USA). American Ink Maker (1923-2001), 69(2), 10-12, 14-15 (English) 1991. CODEN: AMIKAK. ISSN: 0002-8916.
- AB A review with 4 refs. on water-based **ink** binders using shellac, oxidizable alkyd and epoxy ester resins, **polyurethanes**, polyamides, and **sulfonated polyesters**.
- CC 42-0 (Coatings, Inks, and Related Products)
 ST review **ink** water based; polyurethane binder **ink** review; polyamide binder **ink** review; polyester binder **ink** review; epoxy binder **ink** review; alkyd binder **ink** review; shellac binder **ink** review
- IT Alkyd resins
 Polyamides, uses and miscellaneous
 Shellac
 Urethane polymers, uses and miscellaneous (binders, for water-based **inks**)
- IT Epoxy resins, compounds (esters, binders, for water-based **inks**)
- IT Polyesters, compounds (sulfonated, binders, for water-based **inks**)
- IT **Inks**
 (water-thinned, binders for, non-acrylic)
- L72 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
 1987:619213 Document No. 107:219213 Polyester films for magnetic cards. Takeda, Naohiro; Otani, Yuzo; Kita, Masahiro; Okajima, Nariaki (Diafoil Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62059635 A2 19870316 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-197608 19850909.
- AB White-pigmented polyester films with good adhesion to magnetic or printable layers of magnetic cards are prepd. by coating with waterborne, anionic polyurethanes and drawing. A PET film contg. 5% TiO₂ was drawn lengthwise, coated with a 65:30:5 (as solids) mixt. of Impranil DLH (aq. **sulfonated polyurethane**), **Polyester** XWR-901 (aq. **sulfonated polyester**), and silica sol, drawn transversely, and heated at 210.degree. to give a 250-.mu. film with good adhesion of coating to substrate, magnetic layers, and printing **ink**.
- IC ICM C08J007-04

- ICS B29C055-02; G11B005-704
ICI B29K067-00, B29L007-00
CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 77
- L72 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
1987:600562 Document No. 107:200562 Polyester films for label substrates. Takeda, Naohiro; Otani, Yuzo; Kita, Masahiro; Okajima, Nariaki (Diafoil Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62097890 A2 19870507 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-236478 19851024.
- AB Title labels having good **ink** adhesion, are prep'd. by coating polyester films with aq. solns. of anionic polyurethanes, stretching and coating with air-curable UV-curable and/or electron beam-curable **inks**. A PET film was coated with aq. soln. comprising Impranil DLH (**sulfonate**-contg. **polyurethane**), Finetex ES 670 (**polyester ink**), and alkylol melamine, stretched, heated at 230.degree., then coated with UV-curable **inks** to form a product with good adhesion between **inks** and films, but products prep'd. without the polyurethane coatings showed failure in adhesion tests.
- IC ICM B41M007-00
ICS C08J007-04
ICA B29C055-02; B32B027-36
ICI B29K067-00
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38
- ST anionic polyurethane coating polyester film; adhesion **ink** polyurethane coated film; PET label anionic urethane coating
- IT Labels
(poly(ethylene terephthalate) films, urethane coatings for, for good **ink** adhesion)
- IT **Inks**
(photocurable, for poly(ethylene terephthalate) labels, with good adhesion, urethane coatings for)
- IT 62046-82-6
(coatings, for polyester labels for good **ink** adhesion)
- IT 25038-59-9, Poly(ethylene terephthalate), uses and miscellaneous (films, for labels with good **ink** adhesion, anionic polyurethane coatings for)
- L72 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN
1982:219463 Document No. 96:219463 Water-thinned printing **inks** for plastic films. (Toyobo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57010664 A2 19820120 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-84443 19800620.
- AB Urethane polymers derived from polyisocyanates and polyesters of sulfonate salt group-contg. arom. dicarboxylic acid 2-20, arom. dicarboxylic acid 50-98, aliph. or alicyclic dicarboxylic acid 0-30, aliph. or alicyclic glycol 20-100, and bisphenol A polyalkylene glycol ether 0-80 mol and pigments are dispersed in H2O and

water-miscible solvents to give water-thinned printing **inks** for plastic films. Thus, a mixt. of polyester (prepd. from di-Me terephthalate 466, di-Me isophthalate 388, di-Me 5-sulfoisophthalate 178, ethylene glycol 443, and neopentyl glycol 400 parts, having mol. wt. 18,000, softening temp. 162.degree.) 100, MeCOEt 200, and hexamethylene diisocyanate 6.7 parts was heated 5 h at 70-75.degree. to give copolymer (I) [81977-93-7] having softening temp. 153.degree.. A compn. of the I 30, iso-PrOH 14, H₂O 56 parts was stirred 3 h at 70-75.degree. to give a stable dispersion. An **ink** of the above dispersion 100, TiO₂ 15, and 50% siloxane soln. in EtOH 0.5 part was ball milled, applied to a poly(ethylene terephthalate) [25038-59-9] film, and dried at 70.degree. to form a 7-.mu. coating having gloss 91%, no blocking, good adhesion to the film, and no change after a day of immersion in H₂O at 30.degree..

IC C09D011-10

ICA C08G018-46

CC 42-12 (Coatings, Inks, and Related Products)

ST polyester polyurethane printing **ink**; **sulfo** group
polyester polyurethane; water thinned **ink**

IT **Inks**

(printing, water-thinned, **sulfo** group-contg.
polyester-polyurethanes for, for
polyester films)

IT 81977-93-7 81977-94-8 81977-95-9 81990-74-1
(**inks**, water-thinned, for polyester films)

IT 25038-59-9, uses and miscellaneous
(printing **inks** for films of, **sulfo**
group-contg. **polyester-polyurethanes** for
water-thinned)

=> d 173 1-8 cbib abs hitstr hitind

L73 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

2003:443892 Document No. 139:22841 Manufacture of solventless fine polyurethane resin aqueous dispersions. Tanaka, Tadashi (Sanyo Chemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003165818 A2 20030610, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-274834 20020920. PRIORITY: JP 2001-289303 20010921.

AB The dispersions useful for coating, paints, finishing agents for paper or textile, etc., are obtained by (A) mixing an isocyanate group-terminated prepolymer bearing ionic groups or/and ionic group-forming groups with an NCO-free reactive diluent, (2) suspending the resulting mixt. in an aq. medium, and (3) chain-extending the prepolymer with an extender in the aq. medium where the reactivity of the selected diluent to NCO group is lower than that of a secondary amine and the diluent has a viscosity of 0.1-10 Pa.cntdot.s. Thus, prepg. a prepolymer from dimethylolpropionic acid 134, Sanestor 45620 (polyester polyol) 2000 and IPDI 666 parts, and mixing 100 parts the prepolymer (terminal NCO group 3.0%, viscosity 40 Pa.cntdot.s) with 25 parts a reactive

diluent derived from hydrazine hydrate-modified IPDI-Sannix PP 2000 (PPG) copolymer (viscosity at 90.degree. 0.6 Pa.cntdot.s; Mn 3500) at 90.degree. gave a mixt. with viscosity of 15 Pa.cntdot.s. Mixing 100 parts the mixt. with 114 parts water and 11.9 parts ethylenediamine (10% aq. soln.) gave an extended product in aq. dispersion with nonvolatile fraction 45%, viscosity 125 mPa.cntdot.s and fine particles with diam. of 75 nm. Casting a 100:5 mixt. of the dispersion and Aquanate 100 (isocyanate crosslinker) in a polypropylene tray and drying gave a cured film with good resistance to warm water and shear modulus at 60.degree. of 8×10^7 dyne/cm².

IT 537047-70-4P, 3-(2,3-Dihydroxypropoxy)-1-propanesulfonic acid-Sannix PP 2000-IPDI copolymer
(prepolymer; reactive diluents and solventless fine polyurethane resin aq. dispersions)

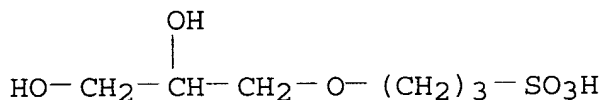
RN 537047-70-4 HCAPLUS

CN 1-Propanesulfonic acid, 3-(2,3-dihydroxypropoxy)-, polymer with .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 193954-01-7

CMF C6 H14 O6 S

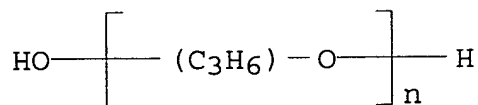


CM 2

CRN 25322-69-4

CMF (C3 H6 O)_n H2 O

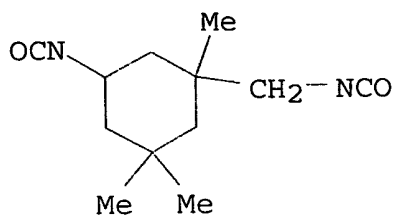
CCI IDS, PMS



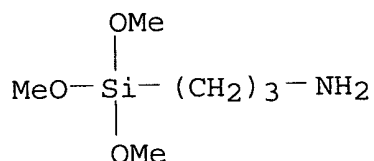
CM 3

CRN 4098-71-9

CMF C12 H18 N2 O2



IT 13822-56-5DP, .gamma.-Aminopropyltrimethoxysilane, reaction products with reaction diluents
 (reactive diluents; reactive diluents and solventless fine polyurethane resin aq. dispersions)
 RN 13822-56-5 HCAPLUS
 CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)

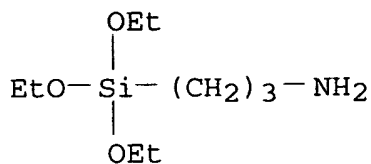


IC ICM C08G018-00
 ICS C08G018-65
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42
 IT 537047-70-4P, 3-(2,3-Dihydroxypropoxy)-1-propanesulfonic acid-Sannix PP 2000-IPDI copolymer 538358-06-4P, Adipic acid-1,4-butanediol-dimethylolpropionic acid-isophorone diisocyanate-neopentyl glycol copolymer
 (prepolymer; reactive diluents and solventless fine polyurethane resin aq. dispersions)
 IT 50-21-5DP, Lactic acid, reaction products with reaction diluents
 141-43-5DP, Monoethanolamine, reaction products with reaction diluents 818-61-1DP, reaction products with reaction diluents
 7803-57-8DP, Hydrazine hydrate, reaction products with reaction diluents 13822-56-5DP, .gamma.-Aminopropyltrimethoxysilane, reaction products with reaction diluents 16801-25-5DP, Ethylene glycol monoglycidyl ether, reaction products with reaction diluents 39323-37-0DP, IPDI-Sannix PP 2000 copolymer, reaction products with hydrazine hydrate
 (reactive diluents; reactive diluents and solventless fine polyurethane resin aq. dispersions)

L73 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
 2002:629306 Document No. 137:338330 Synthesis and properties of waterborne self-crosslinkable sulfo-urethane silanol dispersions.
 Lewandowski, Kevin; Krepski, Larry R.; Mickus, Daniel E.; Roberts, Ralph R.; Heilmann, Steven M.; Larson, Wayne K.; Purgett, Mark D.;

Koecher, Steven D.; Johnson, Stephen A.; McGurran, Daniel J.; Rueb, Chris J.; Pathre, Sadanand V.; Thakur, Khalid A. M. (3M Science Research Center, 3M Center, St. Paul, MN, 55144, USA). Journal of Polymer Science, Part A: Polymer Chemistry, 40(17), 3037-3045 (English) 2002. CODEN: JPACEC. ISSN: 0887-624X. Publisher: John Wiley & Sons, Inc..

- AB A novel type of crosslinkable waterborne polyurethane ionomer was prepd. by the acetone process. Two new types of sulfonated diols compatible with this process were synthesized from di-Me 5-sodium sulfo isophthalate using a one- or two-stage method. Isocyanate-terminated polyurethane oligomers were prepd. from the sulfonated diols with various combinations of diols and diisocyanates and subsequently reacted with amino silane derivs. Stable, low-volatile org. chem., waterborne dispersions of the sulfo-urethane silanol polymers spontaneously crosslink upon drying without extra additives or processing steps. Despite the lack of org. coalescing solvents, the dispersions have min. film-forming temps. below 10.degree.C, regardless of glass-transition temp. Tensile strengths up to 6000 psi with elongations between 300 and 600% were obtained for the crosslinked films. The hard-segment content of the films can be controlled to produce films with a Sward-Rocker hardness value up to 42. Through silane end-group modification, the crosslinking d. of the films can also be modified to produce polyurethanes with a wide range of phys. properties.
- IT 919-30-2DP, reaction products with polyester-polyurethanes, hydrolyzed, polymers 474022-18-9DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-18-9P 474022-19-0DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-19-0P 474022-20-3DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-20-3P 474022-21-4DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-21-4P 474022-22-5DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-22-5P 474022-23-6DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-23-6P 474022-24-7DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-24-7P 474022-25-8DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-25-8P 474022-26-9DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-26-9P 474022-27-0DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-27-0P
(synthesis and mech. and thermal properties of waterborne self-crosslinkable sulfo-urethane silanol dispersions)
- RN 919-30-2 HCAPLUS
CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 474022-18-9 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

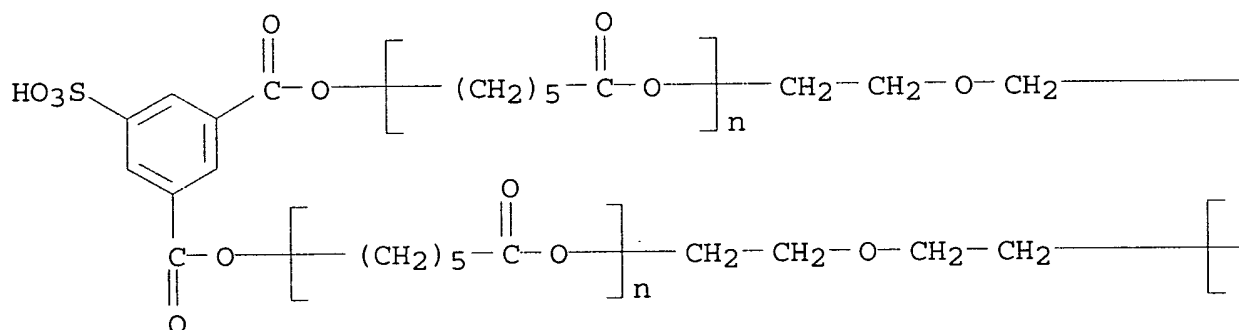
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

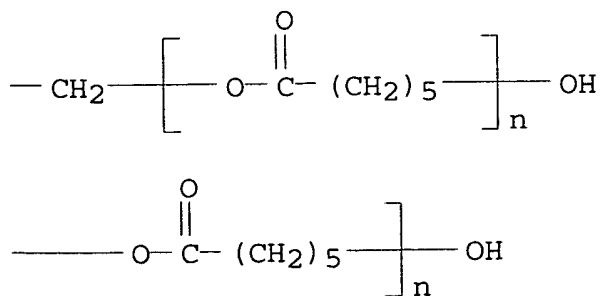
CCI PMS

PAGE 1-A



● Na

PAGE 1-B



CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN—(CH₂)₆—NCO

RN 474022-18-9 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

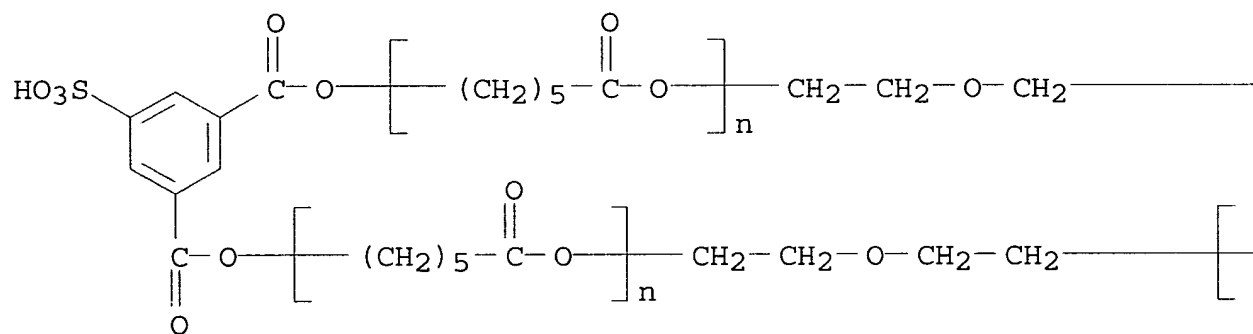
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

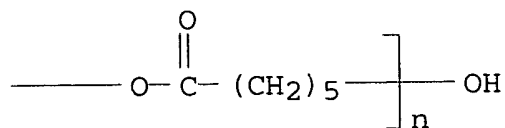
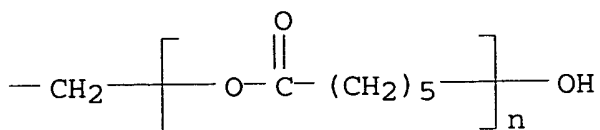
CCI PMS

PAGE 1-A



● Na

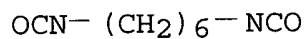
PAGE 1-B



CM 2

CRN 822-06-0

CMF C8 H12 N2 O2



RN 474022-19-0 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

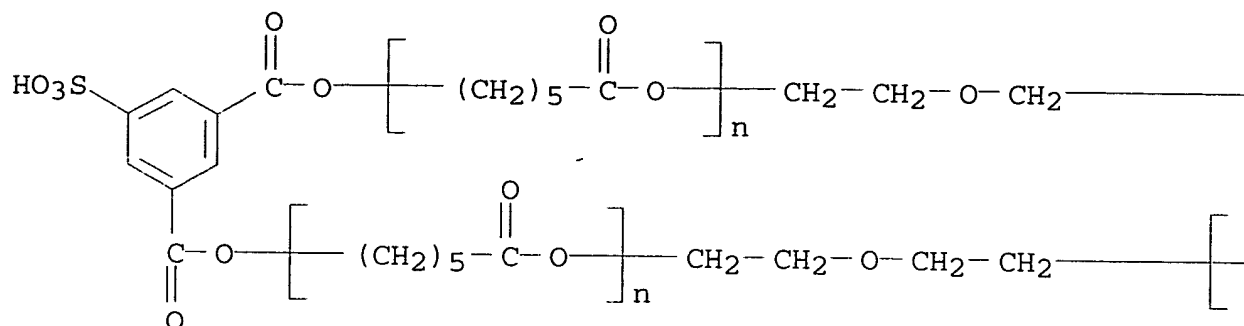
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

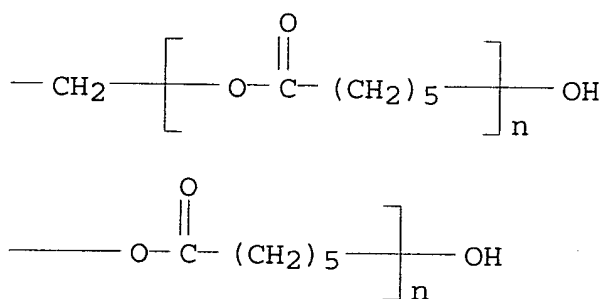
CCI PMS

PAGE 1-A



● Na

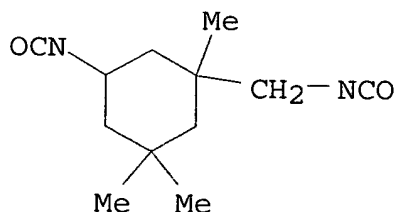
PAGE 1-B



CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2



RN 474022-19-0 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha., .alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate

(2:1), sodium salt, polymer with 5-isocyanato-1-(isocyanatomethyl)-
1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

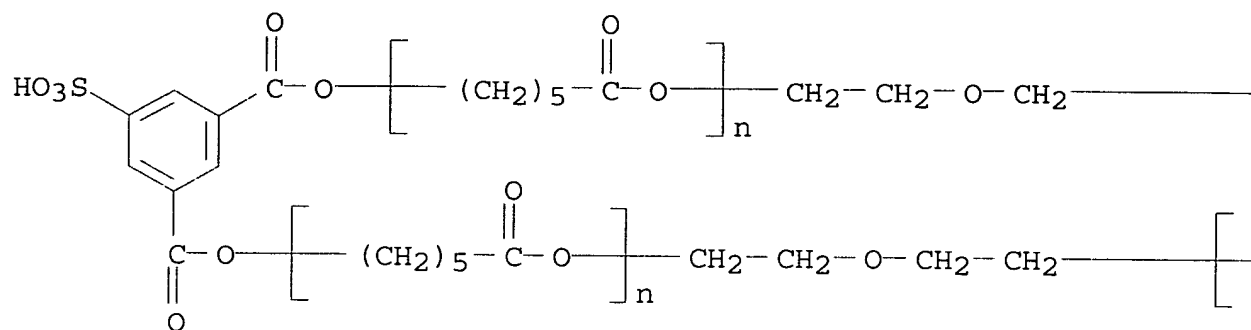
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

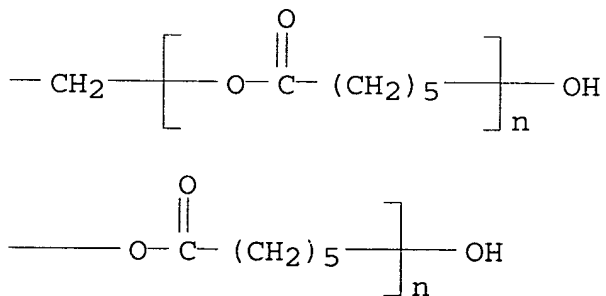
CCI PMS

PAGE 1-A



● Na

PAGE 1-B

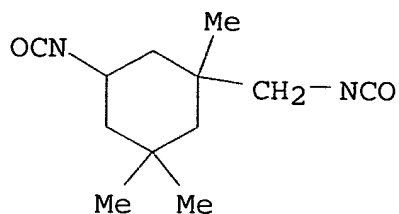


CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2

©



RN 474022-20-3 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

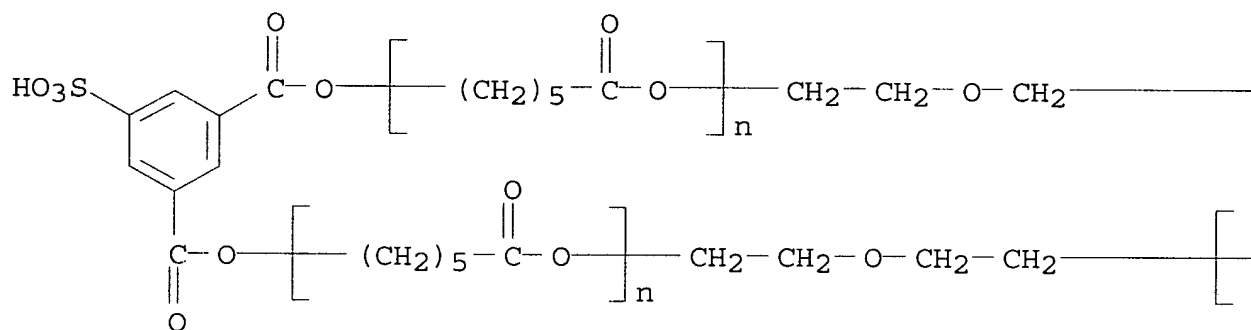
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
 S . Na

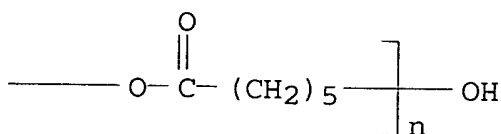
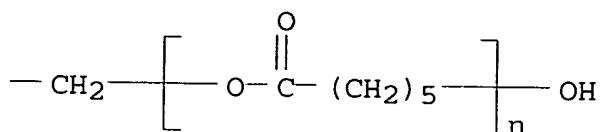
CCI PMS

PAGE 1-A



● Na

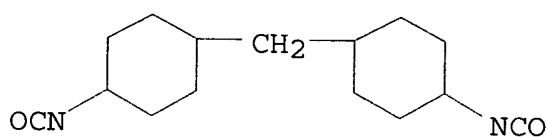
PAGE 1-B



CM 2

CRN 5124-30-1

CMF C15 H22 N2 O2



RN 474022-20-3 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

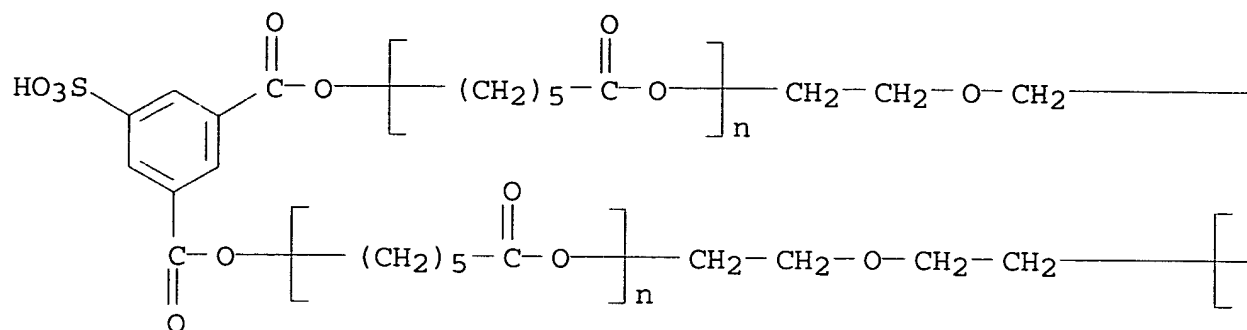
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

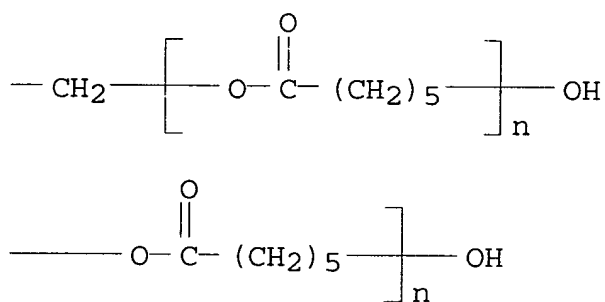
CCI PMS

PAGE 1-A



● Na

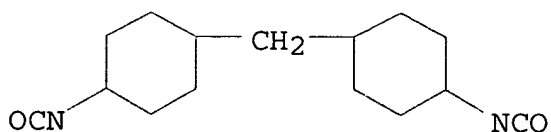
PAGE 1-B



CM 2

CRN 5124-30-1

CMF C15 H22 N2 O2



RN 474022-21-4 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

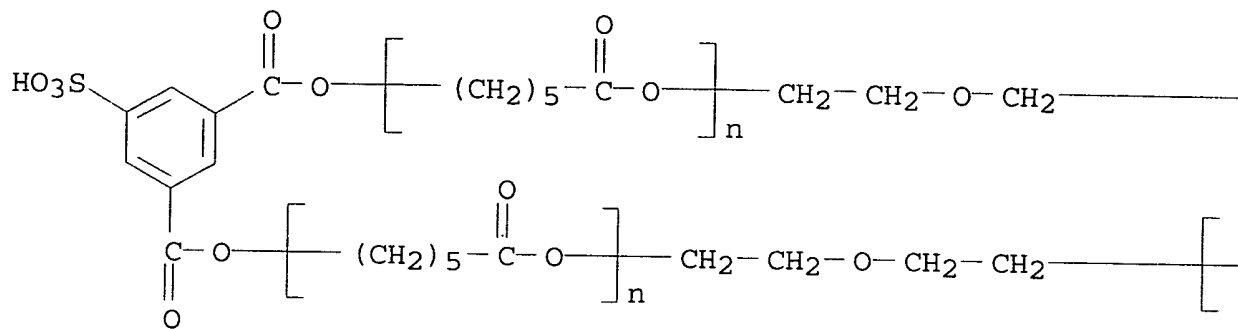
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
S . Na

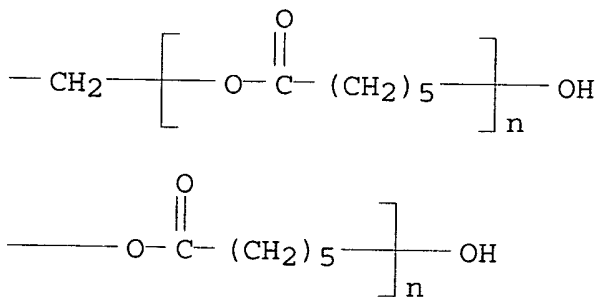
CCI PMS

PAGE 1-A



● Na

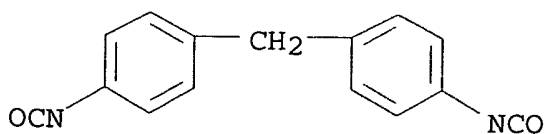
PAGE 1-B



CM 2

CRN 101-68-8

CMF C15 H10 N2 O2



RN 474022-21-4 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

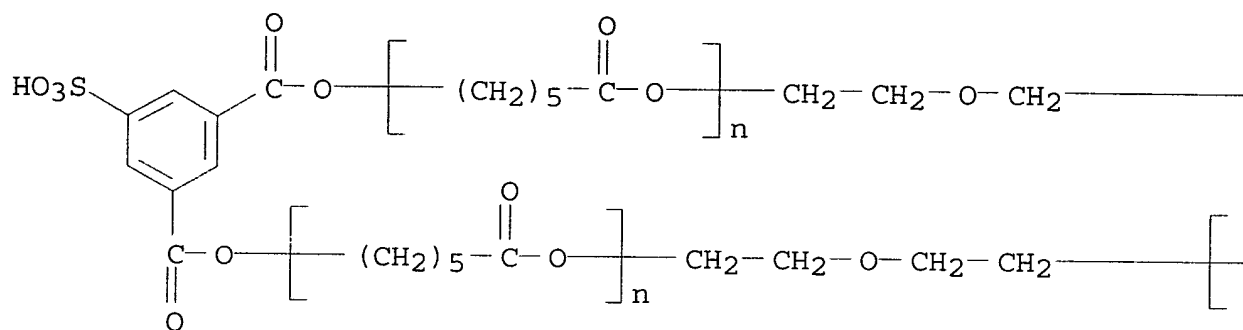
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
 S . Na

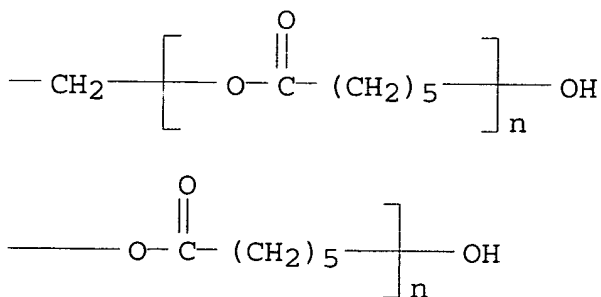
CCI PMS

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● Na

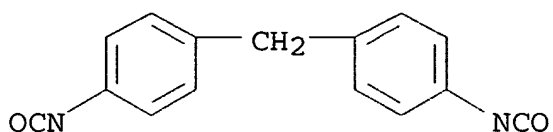
PAGE 1-B



CM 2

CRN 101-68-8

CMF C15 H10 N2 O2



RN 474022-22-5 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,3-diisocyanatomethylbenzene (9CI)
 (CA INDEX NAME)

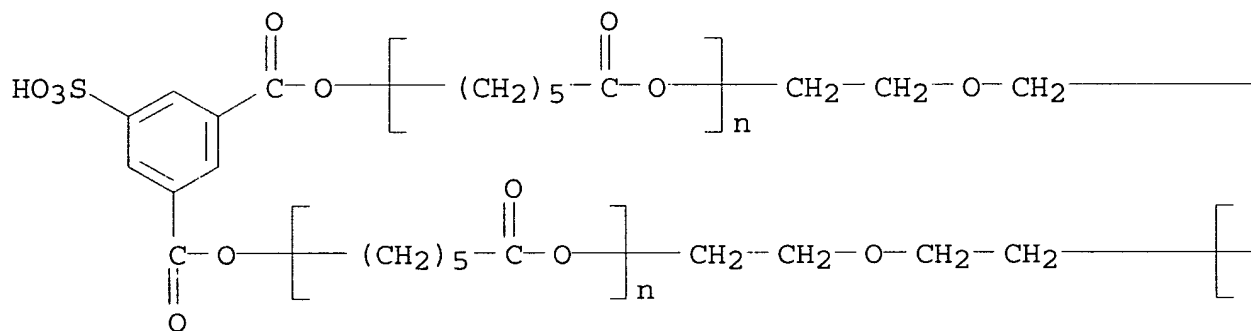
CM 1

CRN 115218-25-2

CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
 S . Na

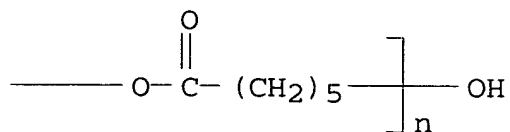
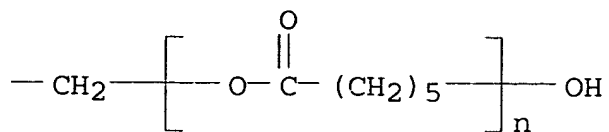
CCI PMS

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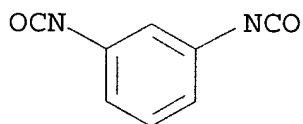
● Na

PAGE 1-B



CM 2

CRN 26471-62-5
 CMF C9 H6 N2 O2
 CCI IDS



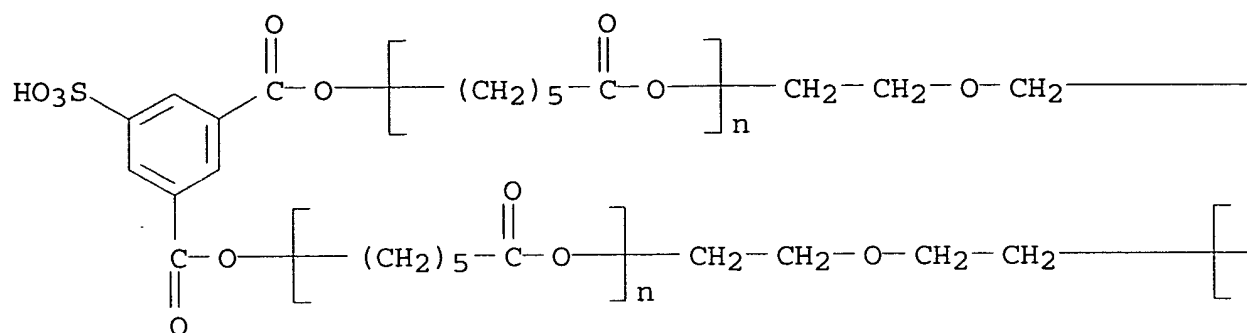
D1-Me

RN 474022-22-5 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, 5-sulfo-1,3-benzenedicarboxylate (2:1), sodium salt, polymer with 1,3-diisocyanatomethylbenzene (9CI)
 (CA INDEX NAME)

CM 1

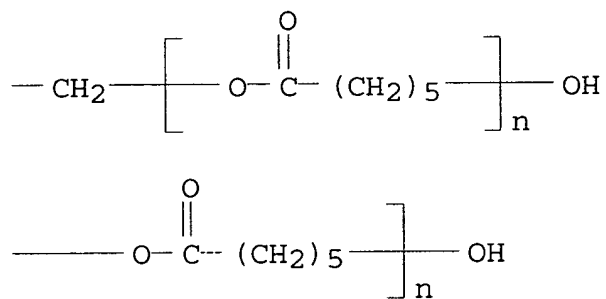
CRN 115218-25-2
 CMF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11
 S . Na
 CCI PMS

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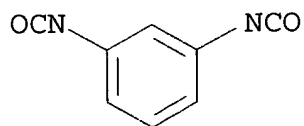
● Na

PAGE 1-B



CM 2

CRN 26471-62-5
 CMF C9 H6 N2 O2
 CCI IDS



D1-Me

RN 474022-23-6 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with 1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

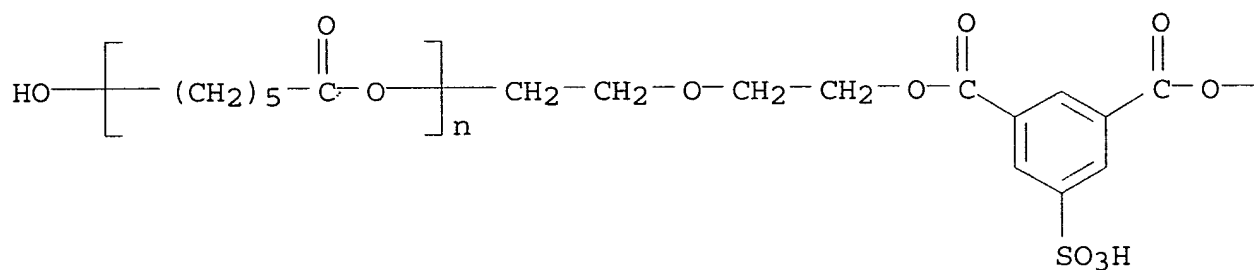
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

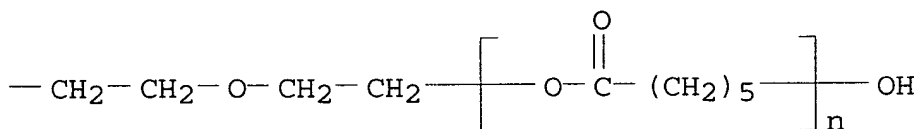
CCI PMS

PAGE 1-A



● Na

PAGE 1-B



CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH2)6-NCO

RN 474022-23-6 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with

1,6-diisocyanatohexane (9CI) (CA INDEX NAME)

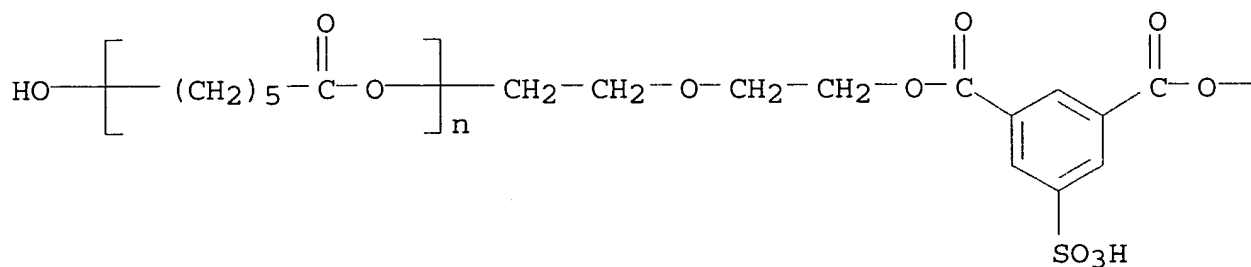
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

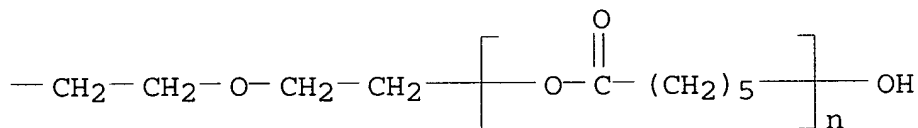
CCI PMS

PAGE 1-A



● Na

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CM 2

CRN 822-06-0

CMF C8 H12 N2 O2

OCN-(CH2)6-NCO

RN 474022-24-7 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]bis[.omega.-hydroxy-, monosodium salt, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)]

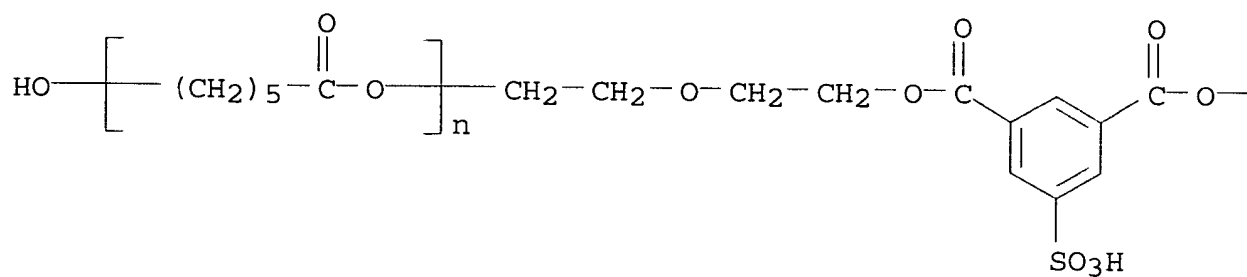
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

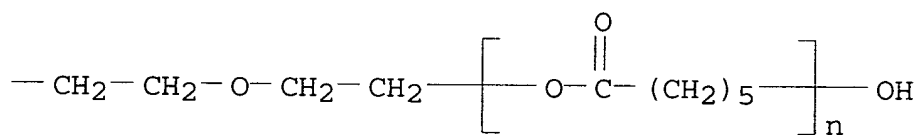
CCI PMS

PAGE 1-A



● Na

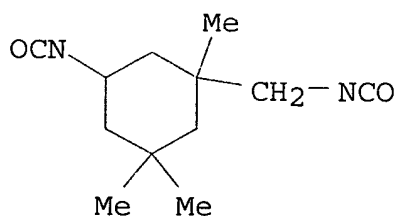
PAGE 1-B



CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2



RN 474022-24-7 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-

ethanediyl)]bis[.omega.-hydroxy-, monosodium salt, polymer with
5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI)
(CA INDEX NAME)

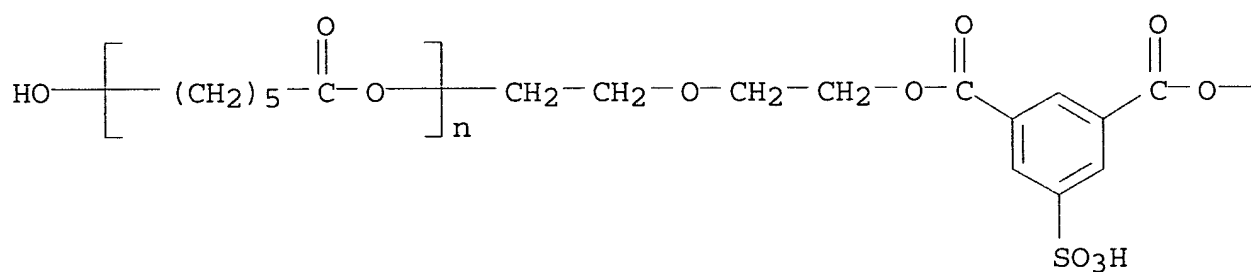
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

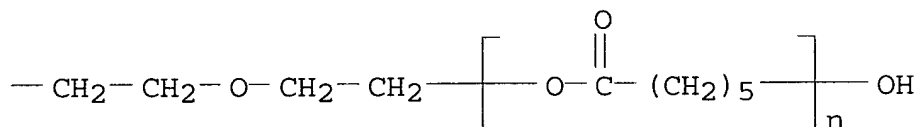
CCI PMS

PAGE 1-A



● Na

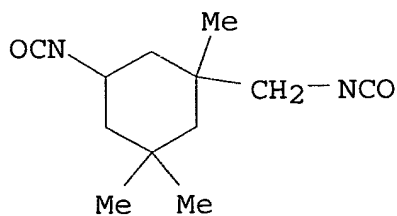
PAGE 1-B



CM 2

CRN 4098-71-9

CMF C12 H18 N2 O2



RN 474022-25-8 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

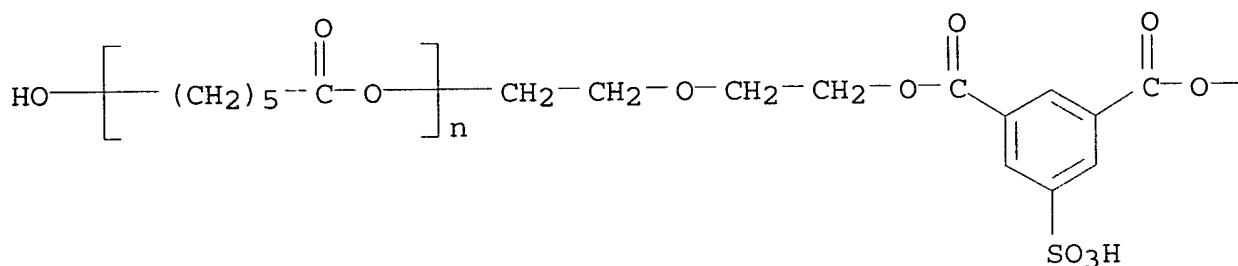
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

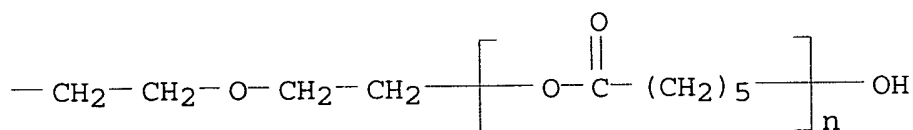
CCI PMS

PAGE 1-A



● Na

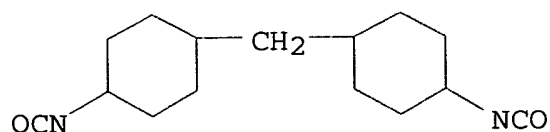
PAGE 1-B



CM 2

CRN 5124-30-1

CMF C15 H22 N2 O2



RN 474022-25-8 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carboxyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

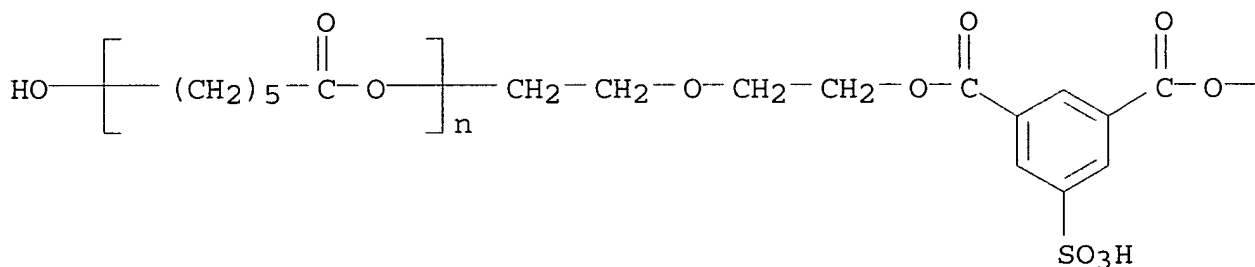
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

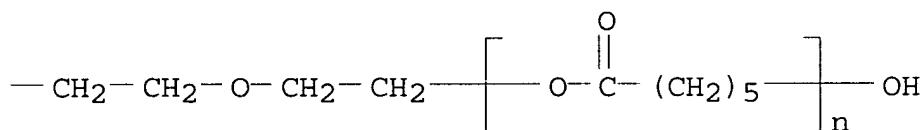
CCI PMS

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● Na

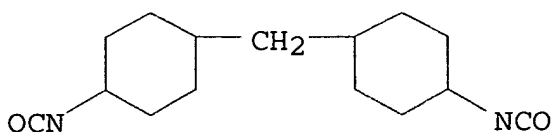
PAGE 1-B



CM 2

CRN 5124-30-1

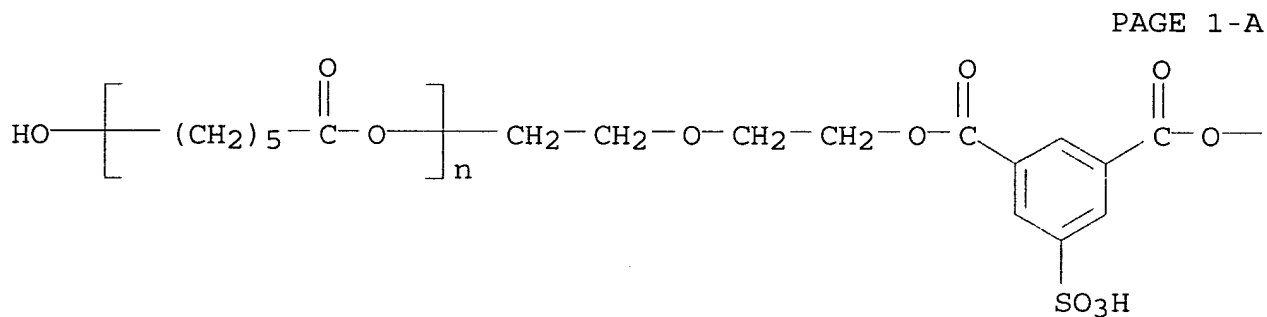
CMF C15 H22 N2 O2



RN 474022-26-9 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)bis[.omega.-hydroxy-, monosodium salt, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

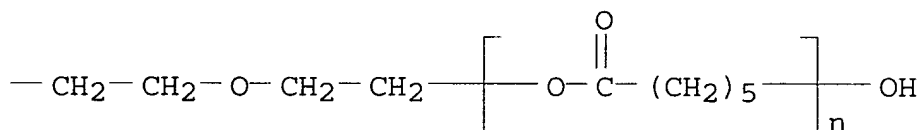
CM 1

CRN 474022-17-8
 CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na
 CCI PMS



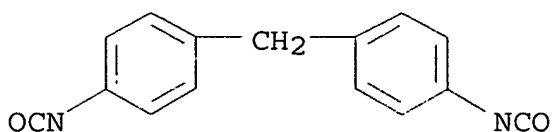
● Na

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CM 2

CRN 101-68-8
 CMF C15 H10 N2 O2



RN 474022-26-9 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

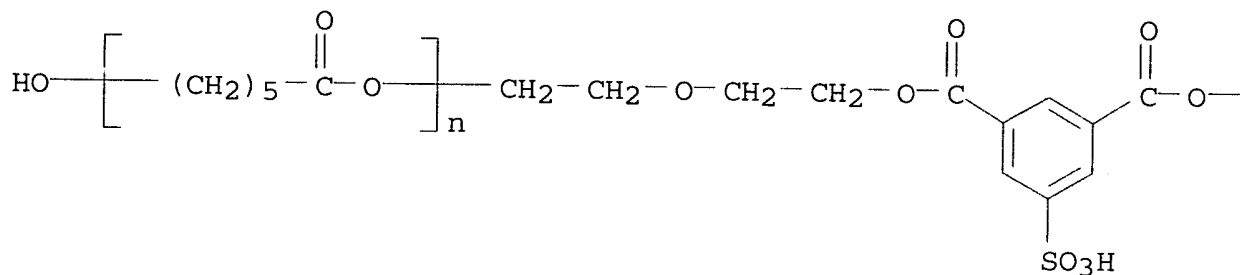
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

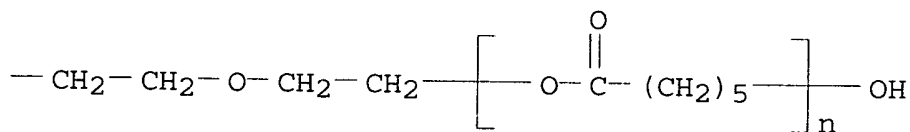
CCI PMS

PAGE 1-A



● Na

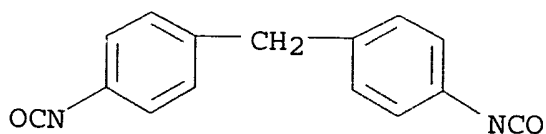
PAGE 1-B



CM 2

CRN 101-68-8

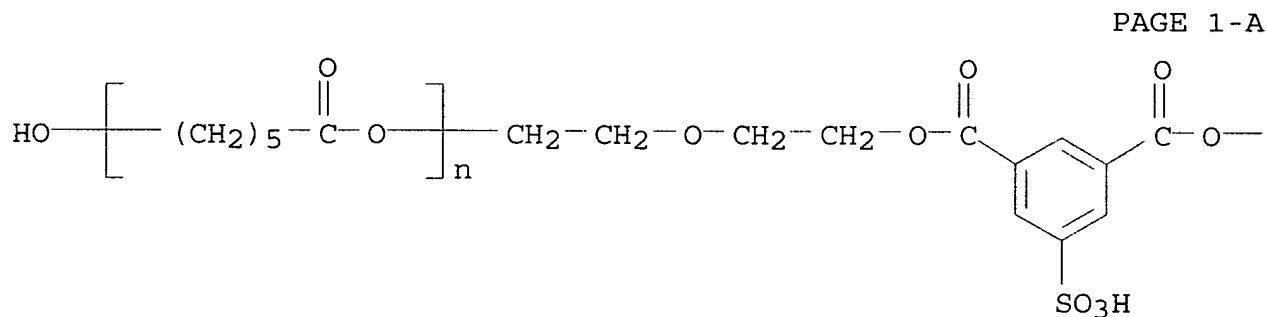
CMF C15 H10 N2 O2



RN 474022-27-0 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)bis[.omega.-hydroxy-, monosodium salt, polymer with 1,3-diisocyanatomethylbenzene (9CI) (CA INDEX NAME)]

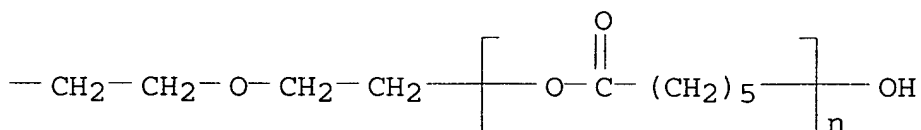
CM 1

CRN 474022-17-8
 CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na
 CCI PMS



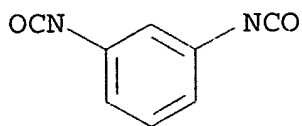
● Na

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CM 2

CRN 26471-62-5
 CMF C9 H6 N2 O2
 CCI IDS



D1-Me

RN 474022-27-0 HCAPLUS
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-[(5-sulfo-1,3-phenylene)bis(carbonyloxy-2,1-ethanediyl)oxy-2,1-ethanediyl]]bis[.omega.-hydroxy-, monosodium salt, polymer with 1,3-diisocyanatomethylbenzene (9CI) (CA INDEX NAME)]

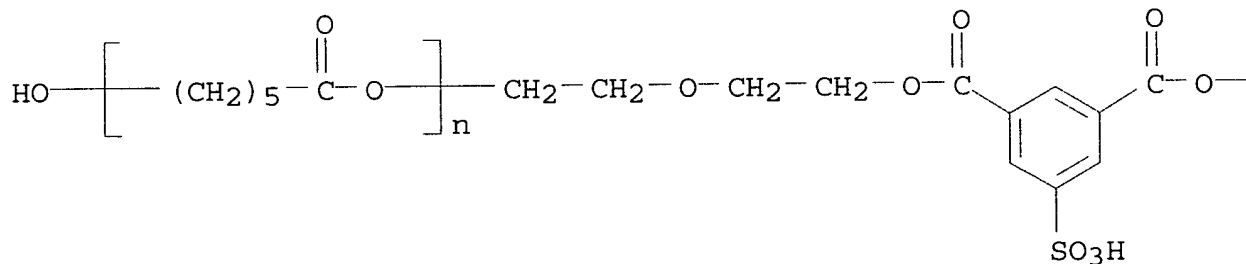
CM 1

CRN 474022-17-8

CMF (C6 H10 O2)n (C6 H10 O2)n C16 H22 O11 S . Na

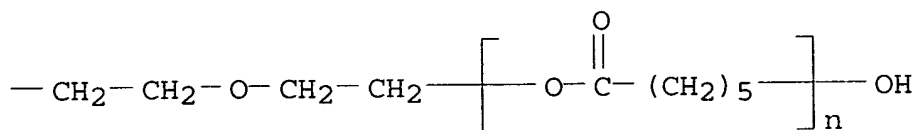
CCI PMS

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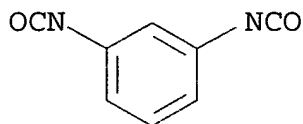
● Na

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CM 2

CRN 26471-62-5
CMF C9 H6 N2 O2
CCI IDS



D1-Me

CC 35-5 (Chemistry of Synthetic High Polymers)
IT 919-30-2DP, reaction products with polyester-polyurethanes, hydrolyzed, polymers 474022-18-9DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-18-9P 474022-19-0DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-19-0P 474022-20-3DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-20-3P 474022-21-4DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-21-4P 474022-22-5DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-22-5P 474022-23-6DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-23-6P 474022-24-7DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-24-7P 474022-25-8DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-25-8P 474022-26-9DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-26-9P 474022-27-0DP, reaction products with aminopropyltriethoxysilanes, hydrolyzed, polymers 474022-27-0P
(synthesis and mech. and thermal properties of waterborne self-crosslinkable sulfo-urethane silanol dispersions)

L73 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
2001:718119 Document No. 135:274310 Alkoxysilane group-containing polyurethane compositions with excellent storage stability and adhesion. Yatsuka, Takeshi; Murata, Masaki; Nishida, Mitsuo (Alps Electric Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001270985 A2 20011002, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-84588 20000324.

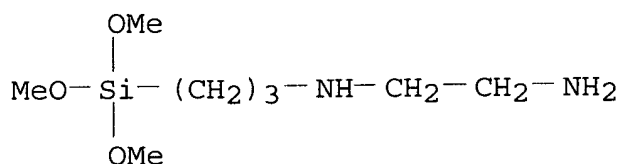
AB The compns., useful for adhesives and coatings, contain 100 parts polyurethanes having alkoxysilane groups on side chains, 0-100 parts hydrolyzable metal alkoxides or their oligomers, and alc.-contg.

solvents. Thus, a 50:25:25 PhMe-Me ether ketone-EtOH mixt. contg. a prepolymer (prepd. from adipic acid-1,6-hexanediol-neopentyl glycol-5-sodiosulfoisophthalic acid copolymer 100, neopentyl glycol 3, and MDI 23 parts) and 3.2 parts KBM 602 [N-(.beta.-aminoethyl)-.gamma.-aminopropylmethyldimethoxysilane] was mixed with 3 parts Et Silicate 40 (tetra-Et silicate pentamer), applied to a polypropylene film, and heated at 120.degree. for 60 min to give a coating with elongation at break 120%, wt. loss 8% after immersion in a 1:1 Me Et ketone-PhMe mixt. at 50.degree. for 1 h, and good transparency.

IT 1760-24-3DP, KBM 603, reaction product with NCO-terminated polyurethanes 3069-29-2DP, KBM 602, reaction product with NCO-terminated polyurethanes 158829-46-0DP, reaction product with KBM 602 and Et Silicate 40 189388-04-3DP, Adipic acid-2,2-dimethylolbutanoic acid-4,4'-diphenylmethane diisocyanate-1,6-hexanediol-neopentyl glycol-5-sodiosulfoisophthalic acid copolymer, reaction products with glycidoxypropylmethyldiethoxy silane 362683-61-2DP, reaction product with KBM 602 (storage-stable coating compns. contg. **alkoxysilyl** -contg. polyurethanes and metal alkoxides)

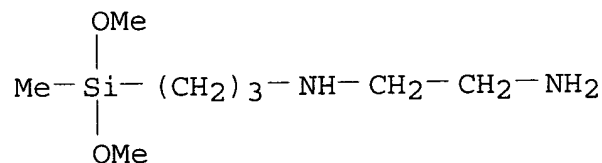
RN 1760-24-3 HCAPLUS

CN 1,2-Ethanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



RN 3069-29-2 HCAPLUS

CN 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- (9CI) (CA INDEX NAME)



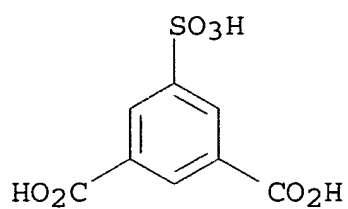
RN 158829-46-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 2,2-dimethyl-1,3-propanediol, hexanedioic acid, 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 6362-79-4

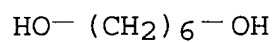
CMF C8 H6 O7 S . Na



● Na

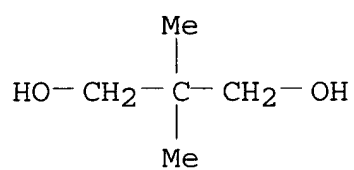
CM 2

CRN 629-11-8
CMF C6 H14 O2



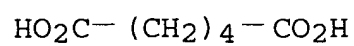
CM 3

CRN 126-30-7
CMF C5 H12 O2



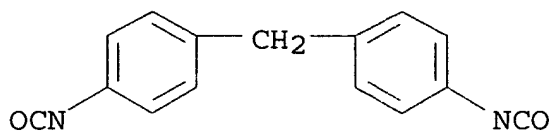
CM 4

CRN 124-04-9
CMF C6 H10 O4



CM 5

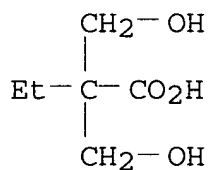
CRN 101-68-8
CMF C15 H10 N2 O2



RN 189388-04-3 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 2,2-bis(hydroxymethyl)butanoic acid, 2,2-dimethyl-1,3-propanediol, hexanedioic acid, 1,6-hexanediol and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

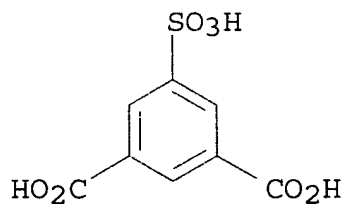
CM 1

CRN 10097-02-6
CMF C6 H12 O4



CM 2

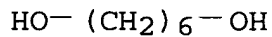
CRN 6362-79-4
CMF C8 H6 O7 S . Na



● Na

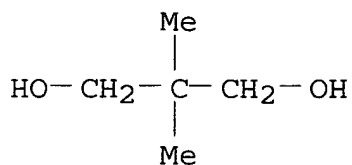
CM 3

CRN 629-11-8
CMF C6 H14 O2



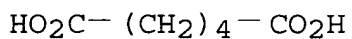
CM 4

CRN 126-30-7
CMF C5 H12 O2



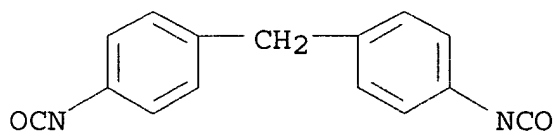
CM 5

CRN 124-04-9
CMF C6 H10 O4



CM 6

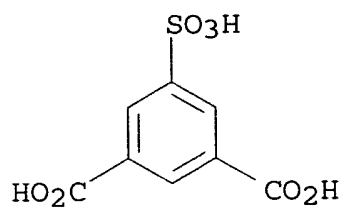
CRN 101-68-8
CMF C15 H10 N2 O2



RN 362683-61-2 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 1,4-cyclohexanedimethanol, 2,2-dimethyl-1,3-propanediol and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

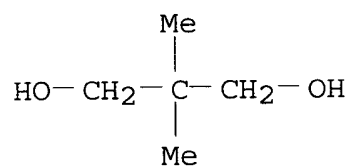
CRN 6362-79-4
CMF C8 H6 O7 S . Na



● Na

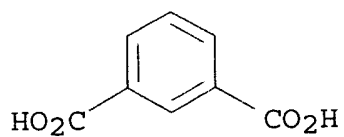
CM 2

CRN 126-30-7
CMF C5 H12 O2



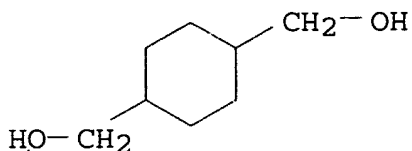
CM 3

CRN 121-91-5
CMF C8 H6 O4



CM 4

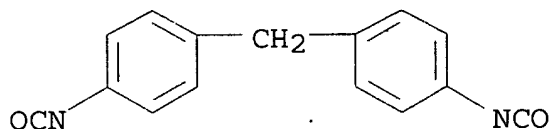
CRN 105-08-8
CMF C8 H16 O2



CM 5

CRN 101-68-8

CMF C15 H10 N2 O2



- IC ICM C08L075-04
ICS C08K005-05; C08K005-541; C08L083-04
- CC 42-10 (Coatings, Inks, and Related Products)
- IT Polyurethanes, uses
(polycarbonate-, **alkoxysilyl**-contg.; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT Polyurethanes, uses
(polyester-, **alkoxysilyl**-contg.; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT Polycarbonates, uses
(polyurethane-, **alkoxysilyl**-contg.; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT Coating materials
(solvent-resistant; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT Alcohols, uses
(solvent; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT Coating materials
(storage-stable; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT 64-17-5, Ethanol, uses
(solvent; storage-stable coating compns. contg. **alkoxysilyl**-contg. polyurethanes and metal alkoxides)
- IT 78-10-4DP, Tetraethoxysilane, reaction products with **ethoxysilyl**-contg. polycarbonate-polyurethane
1760-24-3DP, KBM 603, reaction product with NCO-terminated polyurethanes 2897-60-1DP, KBM 402, reaction products with

polyester-polyurethanes 3069-29-2DP, KBM 602, reaction product with NCO-terminated polyurethanes 11099-06-2DP, Ethyl Silicate 40, reaction products with **ethoxysilyl**-contg. polycarbonate-polyurethane 17927-72-9DP, TAA, reaction products with **ethoxysilyl**-contg. polyester-polyurethane 24801-88-5DP, A 1310, reaction products with polycarbonate-polyurethane 158829-46-ODP, reaction product with KBM 602 and Et Silicate 40 158829-46-ODP, reaction product with KBM 603 189388-04-3DP, Adipic acid-2,2-dimethylolbutanoic acid-4,4'-diphenylmethane diisocyanate-1,6-hexanediol-neopentyl glycol-5-sodiosulfoisophthalic acid copolymer, reaction products with glycidoxypropylmethyldiethoxysilane 362683-61-2DP, reaction product with KBM 602 362683-62-3DP, reaction products with isocyanatopropyltriethoxysilane (storage-stable coating compns. contg. **alkoxysilyl** -contg. polyurethanes and metal alkoxides)

L73 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

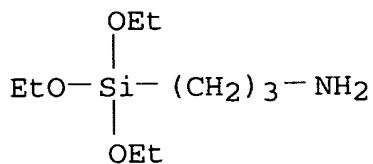
2000:706399 Document No. 133:282528 Dispersions of alkoxysilane-terminated polyurethanes for sizing agents for glass fibers in plastics. Blum, Harald; Naujoks, Karin (Bayer A.-G., Germany). Ger. Offen. DE 19914884 A1 20001005, 14 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1999-19914884 19990401.

AB Dispersions of polyurethanes having high mol. wt. linear chains and alkoxysilane end groups exhibit improved processability as sizing agents for glass fibers and provide glass-fiber-reinforced plastics with good mech. properties. A typical dispersion was manufd. by homogenizing difunctional adipic acid-1,4-butanediol (I) copolymer (mol. wt. 900) 1237, LB 25 (monofunctional ethylene oxide-propylene oxide copolymer monoether, mol. wt. 2245) 278, I 27.2, and Na sulfonate diol 116.4 g at 75.degree., reacting this mixt. with 849 g IPDI at 100.degree. until a theor. NCO value is attained, dispersing the resulting NCO-functional prepolymer in 3300 g water, adding 25% aq. soln. contg. hydrazine 8, diethylenetriamine 12.9, and ethylenediamine 43.8 g, reacting 10 min, adding 60.8 g 3-aminopropyltriethoxy silane in 440 g water in 15 min, and stirring at 50.degree. until NCO group content is not observable.

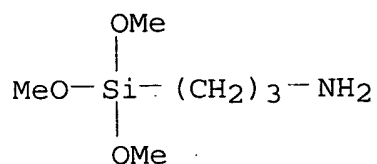
IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products with block polyester-polyurea-polyurethanes 13822-56-5DP, 3-Aminopropyltrimethoxysilane, reaction products with block polycarbonate-polyoxyalkylene-polyurea-polyurethanes 299174-55-3DP, reaction products with aminopropyltrimethoxysilane 299174-56-4DP, reaction products with aminopropyltriethoxysilane 299174-57-5DP, reaction products with aminopropyltrimethoxysilane (dispersions of alkoxysilane-terminated polyurethanes for sizing agents for glass fibers in plastics)

RN 919-30-2 HCAPLUS

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 13822-56-5 HCAPLUS
 CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



RN 299174-55-3 HCAPLUS
 CN Ethanesulfonic acid, 2-[(2-aminoethyl)amino]-, monosodium salt, polymer with N-(2-aminoethyl)-1,2-ethanediamine, Desmophen C 200, 1,6-diisocyanatohexane, hydrazine and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, block (9CI) (CA INDEX NAME)

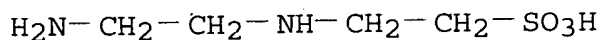
CM 1

CRN 171903-15-4
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34730-59-1
 CMF C4 H12 N2 O3 S . Na

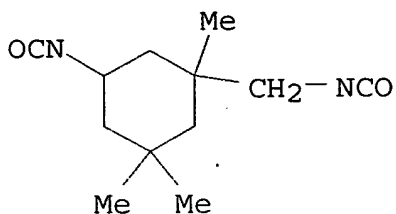


● Na

CM 3

CRN 4098-71-9

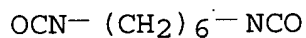
CMF C12 H18 N2 O2



CM 4

CRN 822-06-0

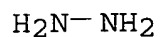
CMF C8 H12 N2 O2



CM 5

CRN 302-01-2

CMF H4 N2



CM 6

CRN 111-40-0

CMF C4 H13 N3



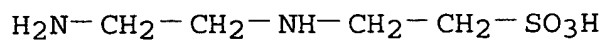
RN 299174-56-4 HCAPLUS

CN Ethanesulfonic acid, 2-[(2-aminoethyl)amino]-, monosodium salt, polymer with N-(2-aminoethyl)-1,2-ethanediamine, 1,4-butanediol, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl) and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, block (9CI) (CA INDEX NAME)

CM 1

CRN 34730-59-1

CMF C4 H12 N2 O3 S . Na



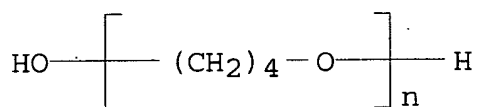
● Na

CM 2

CRN 25190-06-1

CMF (C4 H8 O)_n H2 O

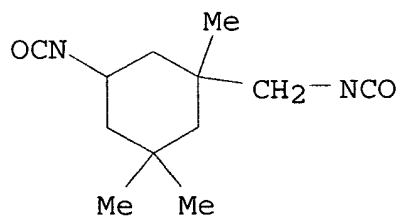
CCI PMS



CM 3

CRN 4098-71-9

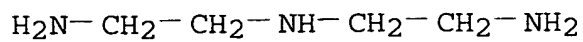
CMF C12 H18 N2 O2



CM 4

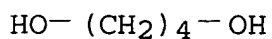
CRN 111-40-0

CMF C4 H13 N3



CM 5

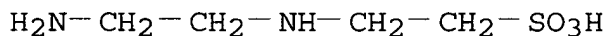
CRN 110-63-4
CMF C4 H10 O2



RN 299174-57-5 HCAPLUS
CN Hexanedioic acid, polymer with 2-[(2-aminoethyl)amino]ethanesulfonic acid monosodium salt, 1,6-diisocyanatohexane, 2,2-dimethyl-1,3-propanediol, 1,6-hexanediol and hydrazine, block (9CI) (CA INDEX NAME)

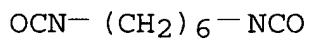
CM 1

CRN 34730-59-1
CMF C4 H12 N2 O3 S . Na



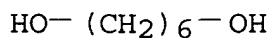
CM 2

CRN 822-06-0
CMF C8 H12 N2 O2



CM 3

CRN 629-11-8
CMF C6 H14 O2



CM 4

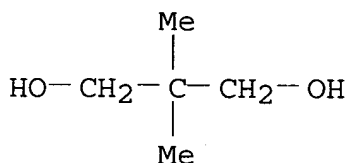
CRN 302-01-2

CMF H4 N2

 $\text{H}_2\text{N}-\text{NH}_2$

CM 5

CRN 126-30-7
 CMF C5 H12 O2



CM 6

CRN 124-04-9
 CMF C6 H10 O4

 $\text{HO}_2\text{C}-(\text{CH}_2)_4-\text{CO}_2\text{H}$

IC ICM C08G018-61
 ICS D06M015-564; C09D175-04; D01H013-30
 CC 37-6 (Plastics Manufacture and Processing)
 IT 75-21-8DP, Ethylene oxide, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated 75-56-9DP, Propylene oxide, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated 79-10-7DP, Acrylic acid, amides with isophoronediamine, polymers with block polycarbonate-polyurea-polyurethane-forming monomers 107-15-3DP, Ethylenediamine, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated 110-63-4DP, 1,4-Butanediol, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated, preparation 111-40-0DP, Diethylenetriamine, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated 124-04-9DP, Adipic acid, polymers with block polyester-polyurea-polyurethanes, alkoxysilane-terminated 302-01-2DP, Hydrazine, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated, preparation 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products with block polyester-polyurea-polyurethanes 2855-13-2DP, Isophoronediamine, polymers with sulfonate-contg. block polyester-polyoxyalkylene-

polyurea-polyurethane-forming monomers, alkoxysilane-terminated 4098-71-9DP, IPDI, polymers with block polyester-polyurea-polyurethane-forming monomers, alkoxysilane-terminated 13822-56-5DP, 3-Aminopropyltrimethoxysilane, reaction products with block polycarbonate-polyoxyalkylene-polyurea-polyurethanes 130254-60-3P 159173-70-3DP, reaction products with block polycarbonate-polyoxyalkylene-polyurea-polyurethanes 299174-55-3DP, reaction products with aminopropyltrimethoxysilane 299174-56-4DP, reaction products with aminopropyltriethoxysilane 299174-57-5DP, reaction products with aminopropyltrimethoxysilane 299174-58-6DP, reaction products with aminopropyltrimethoxysilane 299174-59-7DP, reaction products with 1:1 aminopropyltrimethoxysilane-dimethyl maleate adduct
(dispersions of alkoxysilane-terminated polyurethanes for sizing agents for glass fibers in plastics).

- L73 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
2000:448299 Document No. 133:75017 Electrically conductive polysiloxane-polyurethane or polysiloxane-polyurea compositions and electric conductor parts. Yoshikawa, Hitoshi; Suzuki, Satoshi; Arimura, Shoji (Tokai Rubber Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000186129 A2 20000704, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-365657 19981222.
- AB The compns. contain OH- or amino-terminated linear siloxanes, diisocyanates, chain extenders, and chain extenders involving ionic functional groups. The compns. are used as the elec. conductor parts, esp., electrophotog. rollers. Thus, a compn. comprising .gamma.-hydroxyethoxypropyldimethylsilyl-terminated dimethylsilicone oil 100, MDI (Comonate PH) 37.5, 1,4-butanediol 1.9, Na 1,4-butanediol-2-sulfonate 4.3, and dibutyltin dilaurate 0.001 part was applied on the surface of a roller comprising a stainless steel (SUS 304) core, a silicone rubber base layer contg. carbon black, and a hydronenated nitrile rubber surface layer to give an electrophotog. developer roller showing initial toner chargeability 10.6 .mu.c/cm2, initial residual charge 2 V, and residual charge after 10,000 printings 4 V.
- IT 279218-60-9P 279218-61-0P 279218-62-1P
279218-63-2P
(elec. conductive polysiloxane-polyurethane or polyurea compns. for electrophotog. developer rollers)
- RN 279218-60-9 HCAPLUS
CN 2-Butanesulfonic acid, 1,4-dihydroxy-, monosodium salt, polymer with 1,4-butanediol, .alpha.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]-.omega.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)]] and 1,1'-methylenebis[4-isocyanatobenzene], block (9CI) (CA INDEX NAME)

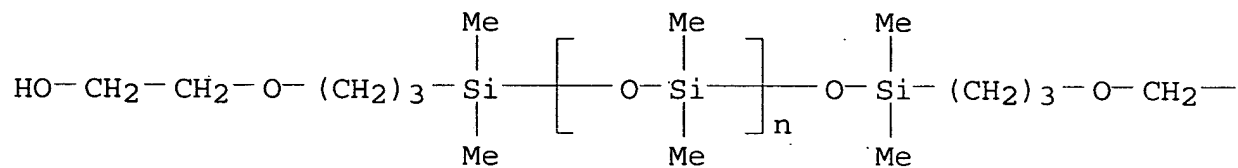
CM 1

CRN 156327-07-0

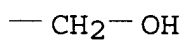
CMF (C2 H6 O Si)n C14 H34 O5 Si2

CCI PMS

PAGE 1-A



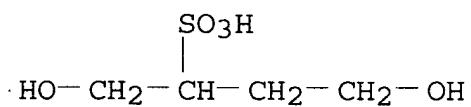
PAGE 1-B



CM 2

CRN 35430-88-7

CMF C4 H10 O5 S . Na

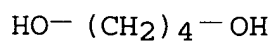


● Na

CM 3

CRN 110-63-4

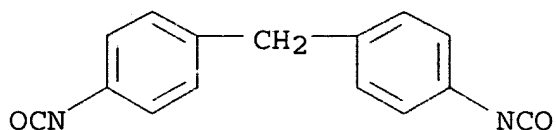
CMF C4 H10 O2



CM 4

CRN 101-68-8

CMF C15 H10 N2 O2



RN 279218-61-0 HCAPLUS

CN 2-Butanesulfonic acid, 1,4-dihydroxy-, monosodium salt, polymer with 1,4-butanediol, Coronate 2507, .alpha.-[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]-.omega.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)] and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

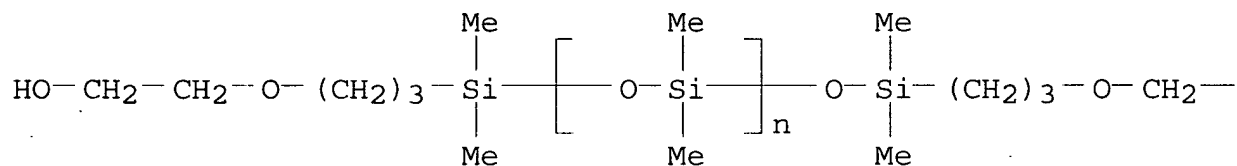
CM 1

CRN 156327-07-0

CMF (C2 H6 O Si)_n C14 H34 O5 Si2

CCI PMS

PAGE 1-A



PAGE 1-B

—CH2—OH

CM 2

CRN 109190-12-7

CMF Unspecified

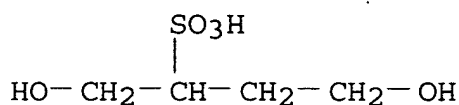
CCI MAN

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CM 3

CRN 35430-88-7

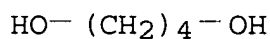
CMF C4 H10 O5 S . Na



● Na

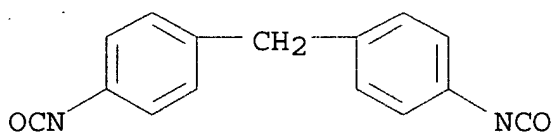
CM 4

CRN 110-63-4
CMF C4 H10 O2



CM 5

CRN 101-68-8
CMF C15 H10 N2 O2



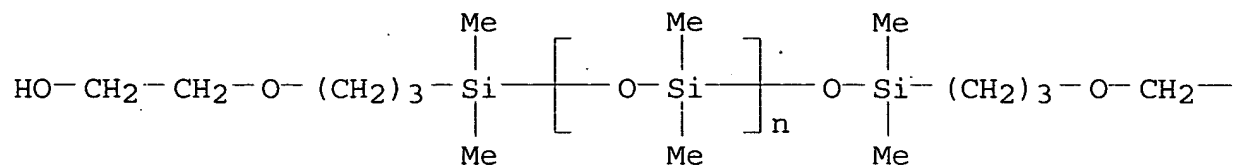
RN 279218-62-1 HCAPLUS

CN 2-Butanesulfonic acid, 1,4-dihydroxy-, monosodium salt, polymer with 1,4-butanediol, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl), .alpha.-[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]-.omega.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)] and 1,1'-methylenebis[4-isocyanatobenzene], block (9CI) (CA INDEX NAME)

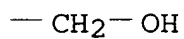
CM 1

CRN 156327-07-0
CMF (C2 H6 O Si)_n C14 H34 O5 Si2
CCI PMS

PAGE 1-A



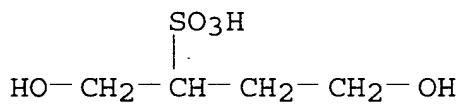
PAGE 1-B



CM 2

CRN 35430-88-7

CMF C4 H10 O5 S . Na



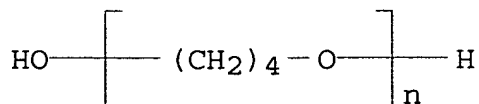
● Na

CM 3

CRN 25190-06-1

CMF (C4 H8 O)_n H2 O

CCI PMS



CM 4

CRN 110-63-4

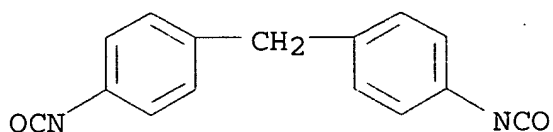
CMF C4 H10 O2

HO-(CH₂)₄-OH

CM 5

CRN 101-68-8

CMF C15 H10 N2 O2



RN 279218-63-2 HCAPLUS

CN 1,3-Benzenedisulfonic acid, 4,5-dihydroxy-, disodium salt, polymer with 1,4-butanediol, .alpha.-[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]-.omega.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]oxy]poly[oxy(dimethylsilylene)] and 1,1'-methylenebis[4-isocyanatobenzene], block (9CI) (CA INDEX NAME)

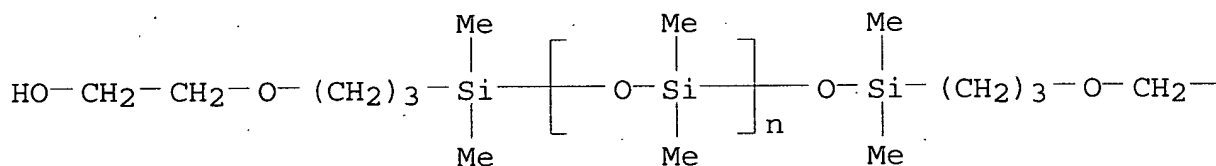
CM 1

CRN 156327-07-0

CMF (C2 H6 O Si)_n C14 H34 O5 Si2

CCI PMS

PAGE 1-A



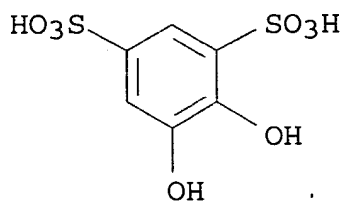
PAGE 1-B

-CH₂-OH

CM 2

CRN 149-45-1

CMF C6 H6 O8 S2 . 2 Na

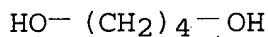


● 2 Na

CM 3

CRN 110-63-4

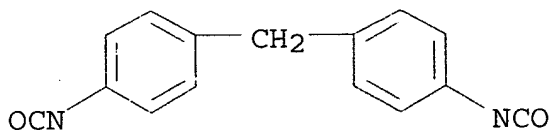
CMF C4 H10 O2



CM 4

CRN 101-68-8

CMF C15 H10 N2 O2



IC ICM C08G018-61

ICS F16C013-00; G03G015-02; G03G015-08; G03G015-16

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 74, 76

IT 279218-60-9P 279218-61-0P 279218-62-1P

279218-63-2P 279218-64-3P, uses 279218-65-4P

279218-66-5P 279218-67-6P 279218-68-7P 279218-69-8P

279218-70-1P 279218-71-2P, uses

(elec. conductive polysiloxane-polyuethane or polyurea compns.
for electrophotog. developer rollers)

L73 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
1998:8733 Document No. 128:116382 Ambient temperature-curable compositions containing polyurethanes and silicones and polymerizable silicone-type surfactants thereof. Oda, Hiroshi; Tanabe, Hisaki; Harakawa, Takeshi; Tachibana, Yoshiki (Nippon Paint Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09328606 A2 19971222 Heisei, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-168239 19960607.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compns. contain (A) polyurethane dispersions obtained by reacting hydrophilic urethane prepolymers and chain extenders in water, (B) carbonyl-contg. silicone-modified resin emulsions obtained by copolyng. oxo compds. with polymerizable double bonds, .alpha.,.beta.-unsatd. ethylenic monomers, and silicones with polymerizable double bonds which may be reactive emulsifiers, and optionally (C) low mol. wt. crosslinking agents. The surfactants have the structure $AaR_{53}-aSiO(R_{52}SiO)b(R_5ASiO)c(R_5QSiO)dSiR_{53}-aAa$ [$A = C_3H_6OCH_2CR_7(R_8OR_6)_2$; $Q = 3-(meth)acryloxypropyl$; $R_5 = C_1-6$ alkyl, Ph; $a = 0, 1, 1.ltoreq. b .ltoreq. 20, 0.ltoreq. c .ltoreq. 10, 1.ltoreq. d .ltoreq. 10, 1.ltoreq. a + c .ltoreq. 10$; $R_6 =$ monovalent groups with CO_2H , phosphoric acid, and/or SO_3H ; $R_8 = C_1-6$ alkylene; $5.ltoreq. n .ltoreq. 40$]. The compns. give coatings showing excellent resistance to weather, fouling, water, and solvents. Thus, a 30%-solid polyurethane dispersion was obtained by reacting 21:45 N,N-bis(2-hydroxyethyl)taurin-IPDI copolymer, Placel CD 208PL (polycarbonate diol), Placel CD 210PL (polycarbonate diol), and IPDI, neutralizing with Et_3N , and emulsifying with hydrazine monohydrate. An amine salt-modified organopolysiloxane I was obtained by reacting hexahydrophthalic anhydride and II and further treating with 2-dimethylaminoethanol. Bu methacrylate-diacetoneacrylamide-I copolymer (III) emulsion was prep'd. An ambient temp.-curable compn. comprised 400 parts the polyurethane dispersion and 343 parts III emulsion and its coating showed good water resistance.

IT 201419-37-6P

(2; ambient-curable compns. contg. polyurethanes and carbonyl-contg. silicone-modified resin emulsions for coatings)

RN 201419-37-6 HCAPLUS

CN Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amino]-, polymer with carbonic acid, 1,2-ethanediamine, 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-methyl-1,5-pentanediol and Placel CD 208PL (9CI) (CA INDEX NAME)

CM 1

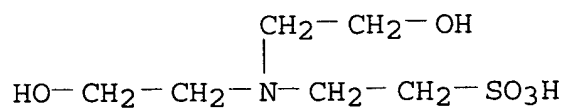
CRN 190337-01-0

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

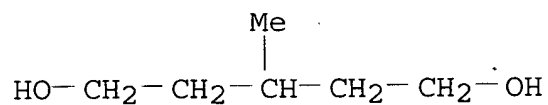
CM 2

CRN 10191-18-1
CMF C6 H15 N O5 S



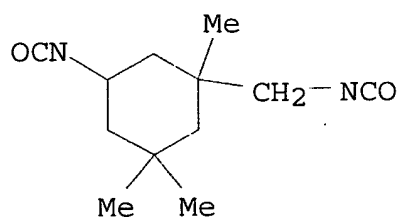
CM 3

CRN 4457-71-0
CMF C6 H14 O2



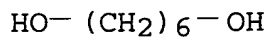
CM 4

CRN 4098-71-9
CMF C12 H18 N2 O2



CM 5

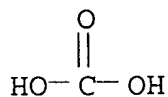
CRN 629-11-8
CMF C6 H14 O2



CM 6

CRN 463-79-6

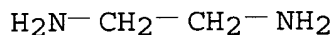
CMF C H2 O3



CM 7

CRN 107-15-3

CMF C2 H8 N2



IT 190443-77-7P 201419-36-5P

(ambient-curable compns. contg. polyurethanes and carbonyl-contg.
silicone-modified resin emulsions for coatings)

RN 190443-77-7 HCAPLUS

CN Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amino]-, polymer with
carbonic acid, 1,6-hexanediol, hydrazine, 5-isocyanato-1-
(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-methyl-1,5-
pentanediol and Placel CD 208PL (9CI) (CA INDEX NAME)

CM 1

CRN 190337-01-0

CMF Unspecified

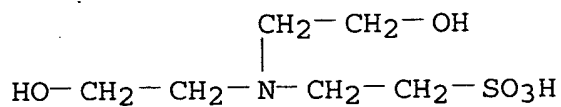
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 10191-18-1

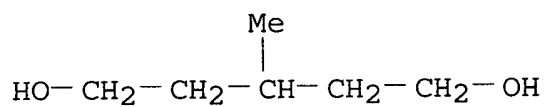
CMF C6 H15 N O5 S



CM 3

CRN 4457-71-0

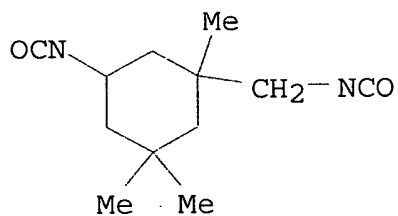
CMF C6 H14 O2



CM 4

CRN 4098-71-9

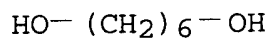
CMF C12 H18 N2 O2



CM 5

CRN 629-11-8

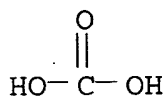
CMF C6 H14 O2



CM 6

CRN 463-79-6

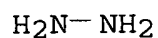
CMF C H2 O3



CM 7

CRN 302-01-2

CMF H4 N2



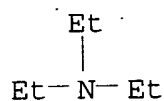
RN 201419-36-5 HCAPLUS

CN Ethanesulfonic acid, 2-[bis(2-hydroxyethyl)amino]-, polymer with carbonic acid, 1,6-hexanediol, hydrazine, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-methyl-1,5-pentanediol and Placel CD 208PL, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

CRN 190443-77-7

CMF (C12 H18 N2 O2 . C6 H15 N O5 S . C6 H14 O2 . C H2 O3 . H4 N2 . Unspecified)x

CCI PMS

CM 3

CRN 190337-01-0

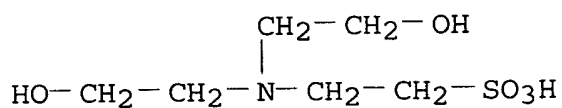
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

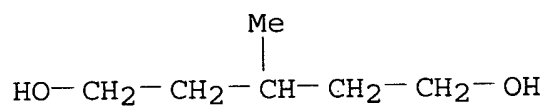
CM 4

CRN 10191-18-1
CMF C6 H15 N O5 S



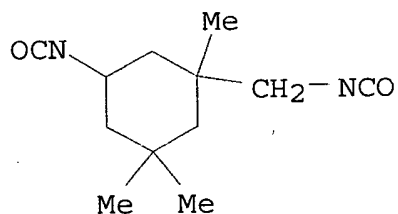
CM 5

CRN 4457-71-0
CMF C6 H14 O2



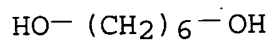
CM 6

CRN 4098-71-9
CMF C12 H18 N2 O2



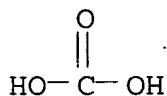
CM 7

CRN 629-11-8
CMF C6 H14 O2



CM 8

CRN 463-79-6
CMF C H2 O3



CM 9

CRN 302-01-2

CMF H4 N2

H₂N-NH₂

IT 201419-43-4P 201614-70-2P

(ambient-curable compns. contg. polyurethanes and carbonyl-contg. silicone-modified resin emulsions for coatings)

RN 201419-43-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with
 2-[bis(2-hydroxyethyl)amino]ethanesulfonic acid, carbonic acid,
 .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-
 .omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)],
 N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 1,2-ethanediamine,
 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-
 trimethylcyclohexane, 3-methyl-1,5-pentanediol and Placel CD 208PL
 (9CI) (CA INDEX NAME)

CM 1

CRN 190337-01-0

CMF Unspecified

CCI PMS, MAN

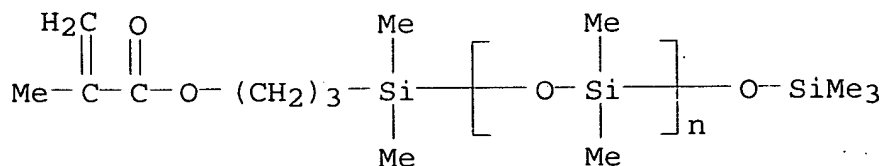
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 123109-42-2

CMF (C2 H6 O Si)_n C12 H26 O3 Si2

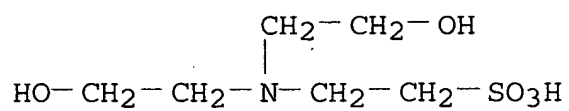
CCI PMS



CM 3

CRN 10191-18-1

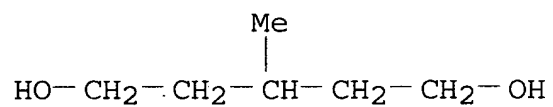
CMF C6 H15 N O5 S



CM 4

CRN 4457-71-0

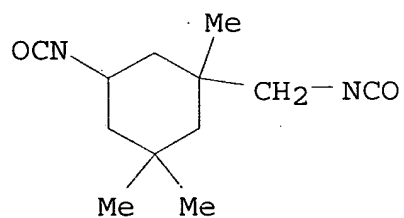
CMF C6 H14 O2



CM 5

CRN 4098-71-9

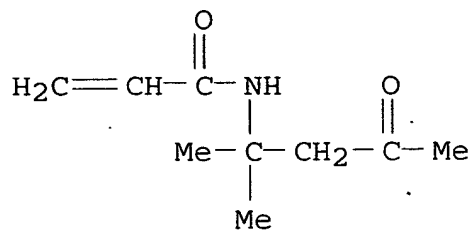
CMF C12 H18 N2 O2



CM 6

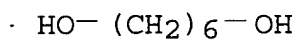
CRN 2873-97-4

CMF C9 H15 N O2



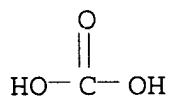
CM 7

CRN 629-11-8
CMF C6 H14 O2



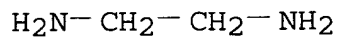
CM 8

CRN 463-79-6
CMF C H2 O3



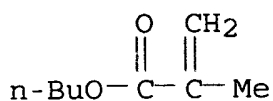
CM 9

CRN 107-15-3
CMF C2 H8 N2



CM 10

CRN 97-88-1
CMF C8 H14 O2



RN 201614-70-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with
 2-[bis(2-hydroxyethyl)amino]ethanesulfonic acid, carbonic acid,
 .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-
 .omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)],
 N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 1,6-hexanediol,
 hydrazine, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-
 trimethylcyclohexane, methyl 2-methyl-2-propenoate, methyloxirane
 polymer with oxirane bis(2-aminopropyl) ether; 3-methyl-1,5-
 pentanediol and Placel CD 208PL (9CI) (CA INDEX NAME)

CM 1

CRN 190337-01-0

CMF Unspecified

CCI PMS, MAN

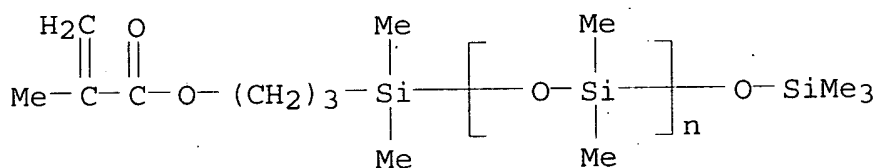
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 123109-42-2

CMF (C2 H6 O Si)_n C12 H26 O3 Si2

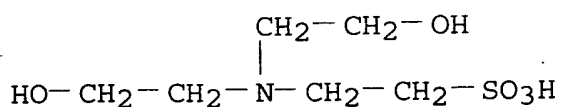
CCI PMS



CM 3

CRN 10191-18-1

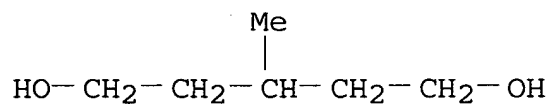
CMF C6 H15 N O5 S



CM 4

CRN 4457-71-0

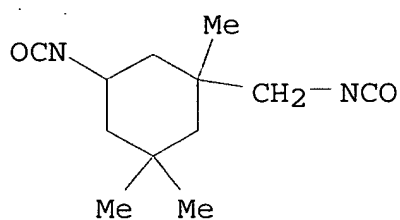
CMF C6 H14 O2



CM 5

CRN 4098-71-9

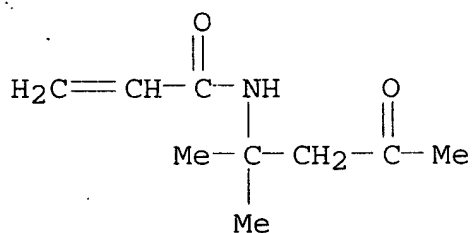
CMF C12 H18 N2 O2



CM 6

CRN 2873-97-4

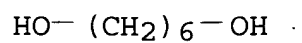
CMF C9 H15 N O2



CM 7

CRN 629-11-8

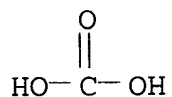
CMF C6 H14 O2



CM 8

CRN 463-79-6

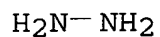
CMF C H2 O3



CM 9

CRN 302-01-2

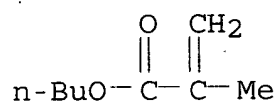
CMF H4 N2



CM 10

CRN 97-88-1

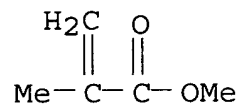
CMF C8 H14 O2



CM 11

CRN 80-62-6

CMF C5 H8 O2



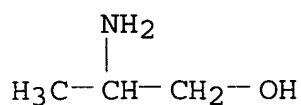
CM 12

CRN 65605-36-9

CMF C3 H9 N O . 1/2 (C3 H6 O . C2 H4 O) x

CM 13

CRN 6168-72-5
 CMF C3 H9 N O

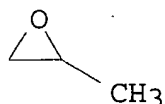


CM 14

CRN 9003-11-6
 CMF (C3 H6 O . C2 H4 O)x
 CCI PMS

CM 15

CRN 75-56-9
 CMF C3 H6 O



CM 16

CRN 75-21-8
 CMF C2 H4 O



IC ICM C08L075-04
 ICS B01F017-54; C08G018-40; C08G077-20; C08G077-22; C08L055-00;
 C09D175-04; C11D001-82; C08F299-08
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37, 46
 IT 201419-37-6P
 (2; ambient-curable compns. contg. polyurethanes and
 carbonyl-contg. silicone-modified resin emulsions for coatings)
 IT 80-62-6DP, graft copolymer with aminocarbonyl-contg. acrylic
 silicone 97-88-1DP, graft copolymer with aminocarbonyl-terminated

acrylic silicone 2873-97-4DP, Diacetoneacrylamide, graft copolymer with aminocarbonyl-terminated acrylic silicone 21282-97-3DP, graft copolymer with aminocarbonyl-contg. acrylic silicone 190064-77-8P
 190443-77-7P 201419-36-5P 201419-39-8P

201419-40-1P 201419-41-2P 201419-42-3P

(ambient-curable compns. contg. polyurethanes and carbonyl-contg. silicone-modified resin emulsions for coatings)

IT 201419-43-4P 201614-70-2P

(ambient-curable compns. contg. polyurethanes and carbonyl-contg. silicone-modified resin emulsions for coatings)

IT 108-01-0DP, reaction products with carboxy-terminated acrylic siloxane 201419-38-7DP, **trimethylsilyl-terminated**, reaction products with hexahydrophthalic anhydride and 2-dimethylaminoethanol

(reactive emulsifier, for resin emulsions; ambient-curable compns. contg. polyurethanes and carbonyl-contg. silicone-modified resin emulsions for coatings)

L73 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

1997:739884 Document No. 128:49506 Antisoiling coating films with good adhesion and compositions therefor. Yoshizawa, Shin; Abo, Toshio; Nagata, Junichiro; Nishimura, Yoshiro; Ishimoda, Yoshikazu (Nippon Paint Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09296151 A2 19971118 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-130959 19960426.

AB Title films comprise F-contg. polyurethane-based continuous parts and Si-contg. irregular spots and are prepd. from compns. comprising OH-contg. fluorovinyl polymers, polyalkylene oxide-contg. polyisocyanates, and hydrolyzable **silyl** group-contg. silanols. A compn. contg. Blemmer PE 350-chlorotrifluoroethylene-Et vinyl ether-4-hydroxybutyl vinyl ether-Na p-styrenesulfonate-vinyl cyclohexanoate copolymer and Coronate EH-MPG 081 reaction product, and Me silicate 51 showed good adhesion to steel panels and soil resistance over 6 mo.

IT 199733-16-9DP, Me ether 199944-09-7DP, Me ether 199944-10-0DP, Me ether

(silicate spot-contg. fluoropolymer-polyurethane coatings with good adhesion and soil resistance)

RN 199733-16-9 HCAPLUS

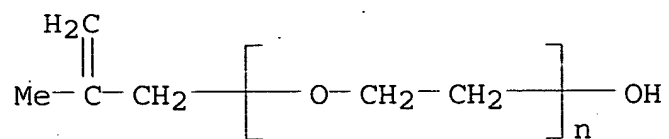
CN Cyclohexanecarboxylic acid, ethenyl ester, polymer with chlorotrifluoroethene, 4-(ethenyloxy)-1-butanol, ethoxyethene, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), sodium 4-ethenylbenzenesulfonate and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, graft (9CI) (CA INDEX NAME)

CM 1

CRN 31497-33-3

CMF (C2 H4 O)n C4 H8 O

CCI PMS

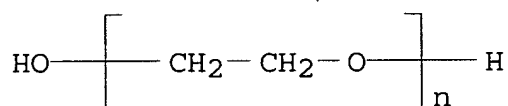


CM 2

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

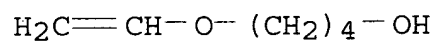
CCI PMS



CM 3

CRN 17832-28-9

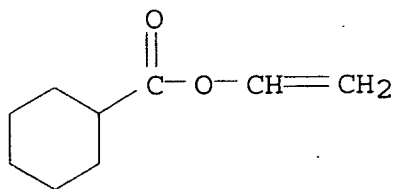
CMF C6 H12 O2



CM 4

CRN 4840-76-0

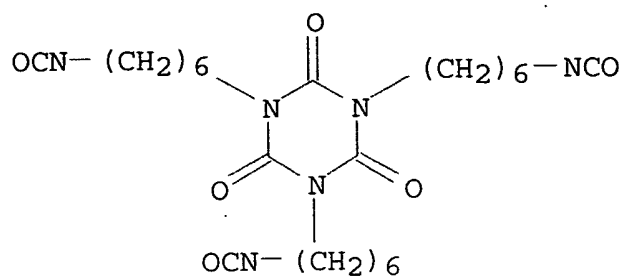
CMF C9 H14 O2



CM 5

CRN 3779-63-3

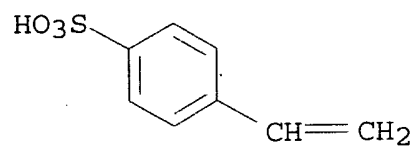
CMF C24 H36 N6 O6



CM 6

CRN 2695-37-6

CMF C8 H8 O3 S . Na

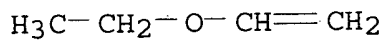


● Na

CM 7

CRN 109-92-2

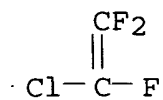
CMF C4 H8 O



CM 8

CRN 79-38-9

CMF C2 Cl F3



RN 199944-09-7 HCAPLUS

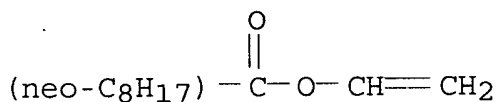
CN Butanedioic acid, sulfo-, C-methyl C-2-propenyl ester, ammonium salt, polymer with chlorotrifluoroethene, ethenyl cyclohexanecarboxylate, ethenyl neononanoate, 4-(ethenyloxy)-1-butanol, ethoxyethene, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, graft (9CI) (CA INDEX NAME)

CM 1

CRN 54423-67-5

CMF C11 H20 O2

CCI IDS

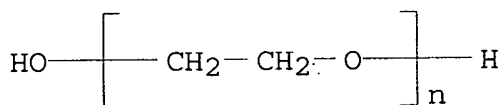


CM 2

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

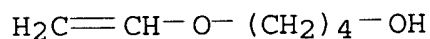
CCI PMS



CM 3

CRN 17832-28-9

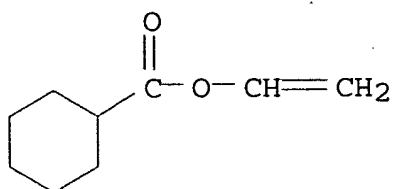
CMF C6 H12 O2



CM 4

CRN 4840-76-0

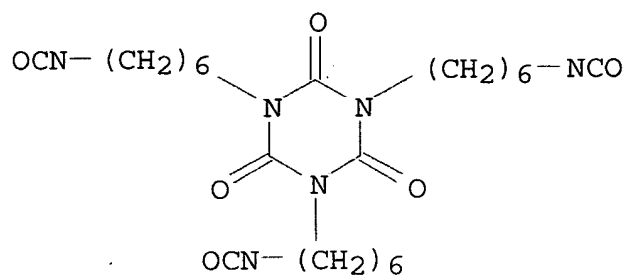
CMF C9 H14 O2



CM 5

CRN 3779-63-3

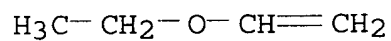
CMF C24 H36 N6 O6



CM 6

CRN 109-92-2

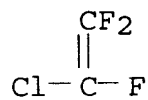
CMF C4 H8 O



CM 7

CRN 79-38-9

CMF C2 Cl F3

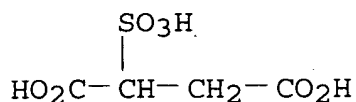


CM 8

CRN 199870-47-8
 CMF C8 H12 O7 S . H3 N
 CCI IDS

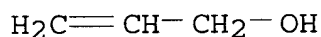
CM 9

CRN 5138-18-1
 CMF C4 H6 O7 S



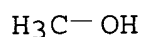
CM 10

CRN 107-18-6
 CMF C3 H6 O



CM 11

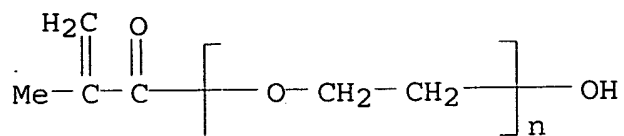
CRN 67-56-1
 CMF C H4 O



RN 199944-10-0 HCAPLUS
 CN Butanedioic acid, sulfo-, C-methyl C-2-propenyl ester, ammonium salt, polymer with 4-(ethenyloxy)-1-butanol, ethoxyethene, 1,1,2,3,3,3-hexafluoro-1-propene, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), sodium 4-ethenylbenzenesulfonate and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6.(1H,3H,5H)-trione, graft (9CI) (CA INDEX NAME)

CM 1

CRN 25736-86-1
 CMF (C2 H4 O)n C4 H6 O2
 CCI PMS

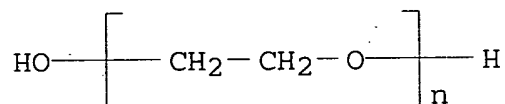


CM 2

CRN 25322-68-3

CMF (C2 H4 O)_n H2 O

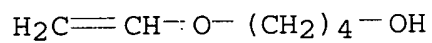
CCI PMS



CM 3

CRN 17832-28-9

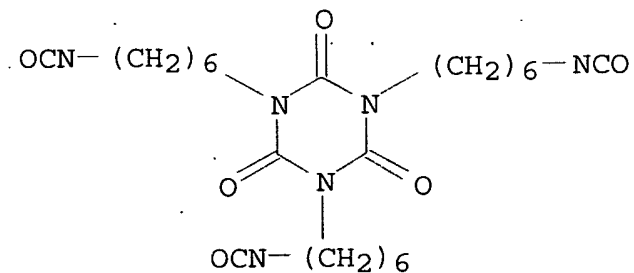
CMF C6 H12 O2



CM 4

CRN 3779-63-3

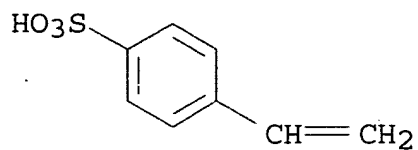
CMF C24 H36 N6 O6



CM 5

CRN 2695-37-6

CMF C8 H8 O3 S . Na

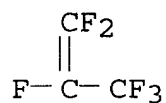


● Na

CM 6

CRN 116-15-4

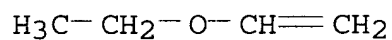
CMF C3 F6



CM 7

CRN 109-92-2

CMF C4 H8 O



CM 8

CRN 199870-47-8

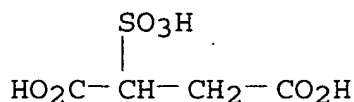
CMF C8 H12 O7 S . H3 N

CCI IDS

CM 9

CRN 5138-18-1

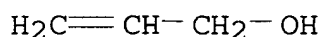
CMF C4 H6 O7 S



CM 10

CRN 107-18-6

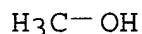
CMF C3 H6 O



CM 11

CRN 67-56-1

CMF C H4 O



IC ICM C09D175-04

ICS B05D007-24; C08G018-61; C08G018-62; C08G018-79

CC 42-10 (Coatings, Inks, and Related Products)

IT 199733-11-4DP, Me ether 199733-13-6DP, Me ether 199733-15-8DP,
 Me ether 199733-16-9DP, Me ether 199733-17-0DP, Me ether
 199733-18-1DP, Me ether 199870-48-9DP, Me ether 199944-08-6DP,
 Me ether 199944-09-7DP, Me ether 199944-10-0DP,
 Me ether

(silicate spot-contg. fluoropolymer-polyurethane coatings with
 good adhesion and soil resistance)

L73 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

1982:7431 Document No. 96:7431 Adhesion of polyurethane ionomers on
 glass and thermoplastics. Lorenz, O.; Reinmoeller, K. H.
 (Fachhochsch. Aachen, Aachen, D-5100, Fed. Rep. Ger.). Kautschuk
 Gummi Kunststoffe, 34(10), 827-35 (German) 1981. CODEN: KGUKAC.
 ISSN: 0022-9520.

AB The adhesion to glass, a polyamide, poly(ethylene terephthalate) (I)
 [25038-59-9], or polyethylene [9002-88-4] is detd. for
 polyurethanes prepd. from a polyester diol or polytetramethylene
 glycol, OCN(CH₂)₆NCO or a uretedione deriv. contg. NCO groups
 (isophorone diisocyanate dimer), H(NHCH₂CH₂)₂SO₃Na, and, in one
 case, glycerol monostearate (II). Glass cleaned with ultrasound or
 chromosulfuric acid gives the best adhesion. The adhesion to glass
 decreases rapidly in the presence of moisture. The adhesion to
 glass increases with increasing thickness (0.2-0.6 mm) of the

polyurethane and with increasing temp. (20-120.degree.). Treatment of glass with (3-glycidyloxypropyl)trimethoxysilane [2530-83-8] or (3-aminopropyl)triethoxysilane [919-30-2] improves the adhesion during exposure of the polyurethane to moisture, but treatment with MeSi(OEt)₃ or H₂C:CHSi(OEt)₃ has little effect. The adhesion of the polyurethane contg. II (hydrophobic material) is similar to that of other polyurethanes in the presence of moisture. The polyurethanes adhere more strongly to a polyamide than to I or polyethylene.

IT 65328-15-6 80159-57-5 80162-98-7
80164-54-1

(adhesion of, to glass and thermoplastics)

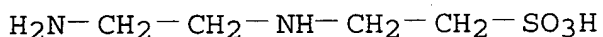
RN 65328-15-6 HCAPLUS

CN Hexanedioic acid, polymer with 2-[(2-aminoethyl)amino]ethanesulfonic acid monosodium salt, 1,6-diisocyanatohexane, 2,2-dimethyl-1,3-propanediol and 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

CRN 34730-59-1

CMF C4 H12 N2 O3 S . Na

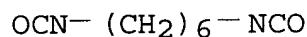


● Na

CM 2

CRN 822-06-0

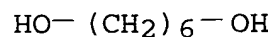
CMF C8 H12 N2 O2



CM 3

CRN 629-11-8

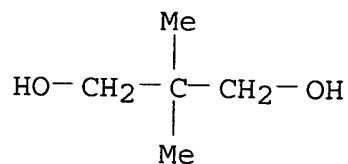
CMF C6 H14 O2



CM 4

CRN 126-30-7

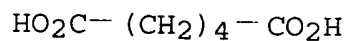
CMF C5 H12 O2



CM 5

CRN 124-04-9

CMF C6 H10 O4



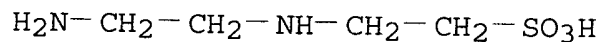
RN 80159-57-5 HCAPLUS

CN Hexanedioic acid, polymer with 2-[(2-aminoethyl)amino]ethanesulfonic acid monosodium salt, 2,3-dihydroxypropyl octadecanoate, 1,6-diisocyanatohexane, 2,2-dimethyl-1,3-propanediol and 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

CRN 34730-59-1

CMF C4 H12 N2 O3 S . Na

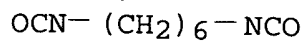


● Na

CM 2

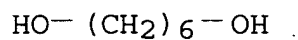
CRN 822-06-0

CMF C8 H12 N2 O2



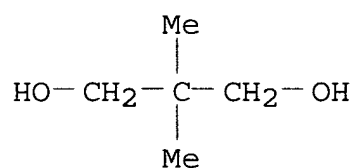
CM 3

CRN 629-11-8
CMF C6 H14 O2



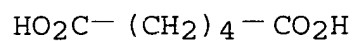
CM 4

CRN 126-30-7
CMF C5 H12 O2



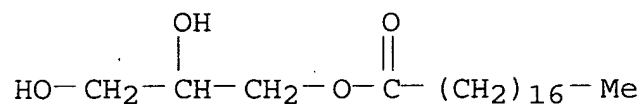
CM 5

CRN 124-04-9
CMF C6 H10 O4



CM 6

CRN 123-94-4
CMF C21 H42 O4



RN 80162-98-7 HCAPLUS

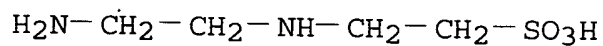
CN Hexanedioic acid, polymer with 2-[(2-aminoethyl)amino]ethanesulfonic acid monosodium salt, 1,3-bis[(5-isocyanato-1,3,3-trimethylcyclohexyl)methyl]-1,3-diazetidione-2,4-dione, 2,2-dimethyl-1,3-propanediol and 1,6-hexanediol (9CI) (CA INDEX

NAME)

CM 1

CRN 34730-59-1

CMF C4 H12 N2 O3 S . Na

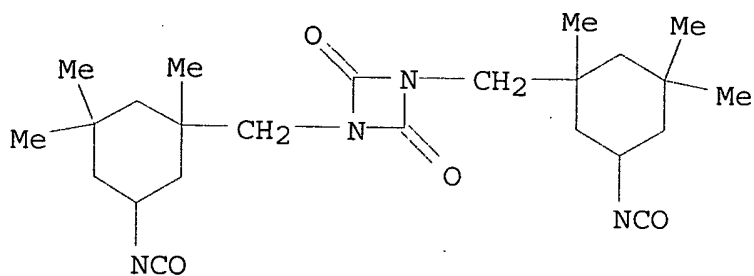


● Na

CM 2

CRN 23370-68-5

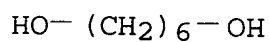
CMF C24 H36 N4 O4



CM 3

CRN 629-11-8

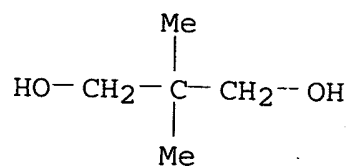
CMF C6 H14 O2



CM 4

CRN 126-30-7

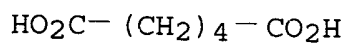
CMF C5 H12 O2



CM 5

CRN 124-04-9

CMF C6 H10 O4



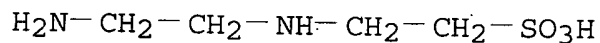
RN 80164-54-1 HCAPLUS

CN Ethanesulfonic acid, 2-[(2-aminoethyl)amino]-, monosodium salt,
polymer with 1,6-diisocyanatohexane and .alpha.-hydro-.omega.-
hydroxypoly(oxy-1,4-butanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 34730-59-1

CMF C4 H12 N2 O3 S . Na



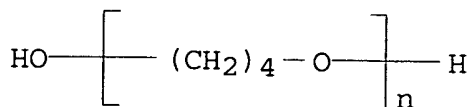
● Na

CM 2

CRN 25190-06-1

CMF (C4 H8 O)_n H2 O

CCI PMS

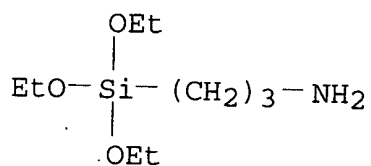


CM 3

CRN 822-06-0
CMF C8 H12 N2 O2

OCN- (CH₂)₆-NCO

IT 919-30-2
(coupling agents, for glass and polyurethane ionomers)
RN 919-30-2 HCAPLUS
CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



CC 37-5 (Plastics Manufacture and Processing)
IT 65328-15-6 80159-57-5 80162-98-7
80164-54-1
(adhesion of, to glass and thermoplastics)
IT 919-30-2 2530-83-8
(coupling agents, for glass and polyurethane ionomers)